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<212> DNA
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<211> 7888

<212> DNA

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Gln Pro Pro His Cys Pro Ser Val Ser His Arg Ala Gln Pro Trp Pro
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His Pro Gly Gln Ser Gln Leu Phe Ala Asp Leu Ser Arg Glu Glu Leu
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 Leu Leu Arg Pro Tyr Asn Phe Phe Asp Glu Asp Pro Ser Ile Phe Ser
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 Pro Gly Ser Val Tyr Phe Glu Lys Gly Gln Asp Ala Gly Leu Cys Ser
 690 695 700

Leu Glu Val Ala Trp Thr Pro Gly Leu Ser Gly Ile Tyr Pro Leu Thr
245 250 255

His Cys Thr Leu Gln Ala Val Leu Ser Asp Asp Gly Met Gly Ile Gln
260 265 270

Ala Gly Glu Pro Asp Pro Pro Glu Glu Pro Leu Thr Ser Gln Ala Ser
275 280 285

Val Pro Pro His Gln Leu Arg Leu Gly Ser Leu His Pro His Thr Pro
290 295 300

Tyr His Ile Arg Val Ala Cys Thr Ser Ser Gln Gly Pro Ser Ser Trp
305 310 315 320

Thr His Trp Leu Pro Val Glu Thr Pro Glu Gly Val Pro Leu Gly Pro
325 330 335

Pro Lys Asn Ile Ser Ala Thr Arg Asn Gly Ser Gln Ala Phe Val His
340 345 350

Trp Gln Glu Pro Arg Ala Pro Leu Gln Gly Thr Leu Leu Gly Tyr Arg
355 360 365

Leu Ala Tyr Gln Gly Gln Asp Thr Pro Glu Val Leu Met Asp Ile Gly
370 375 380

Leu Arg Gln Glu Val Thr Leu Glu Leu Gln Gly Asp Gly Ser Val Ser
385 390 395 400

Asn Leu Thr Val Cys Val Ala Ala Tyr Thr Ala Ala Gly Asp Gly Pro
405 410 415

Trp Ser Leu Pro Val Pro Leu Glu Ala Trp Arg Pro Val Lys Glu Pro
420 425 430

Ser Thr Pro Ala Phe Ser Trp Pro Trp Trp Tyr Val Leu Leu Gly Ala
435 440 445

Val Val Ala Ala Ala Cys Val Leu Ile Leu Ala Leu Phe Leu Val His
450 455 460

Arg Arg Lys Lys Glu Thr Arg Tyr Gly Glu Val Phe Glu Pro Thr Val
465 470 475 480

Glu Arg Gly Glu Leu Val Val Arg Tyr Arg Val Arg Lys Ser Tyr Ser
485 490 495

Arg Arg Thr Thr Glu Ala Thr Leu Asn Ser Leu Gly Ile Ser Glu Glu
500 505 510

Leu Lys Glu Lys Leu Arg Asp Val Met Val Asp Arg His Lys Val Ala
515 520 525

Leu Gly Lys Thr Leu Gly Glu Gly Glu Phe Gly Ala Val Met Glu Gly
530 535 540

Gln Leu Asn Gln Asp Asp Ser Ile Leu Lys Val Ala Val Lys Thr Met
545 550 555 560

Lys Ile Ala Ile Cys Thr Arg Ser Glu Leu Glu Asp Phe Leu Ser Glu
565 570 575

Ala Val Cys Met Lys Glu Phe Asp His Pro Asn Val Met Arg Leu Ile
580 585 590

Gly Val Cys Phe Gln Gly Ser Glu Arg Glu Ser Phe Pro Ala Pro Val
595 600 605

Val Ile Leu Pro Phe Met Lys His Gly Asp Leu His Ser Phe Leu Leu
610 615 620

Tyr Ser Arg Leu Gly Asp Gln Pro Val Tyr Leu Pro Thr Gln Met Leu
625 630 635 640

Val Lys Phe Met Ala Asp Ile Ala Ser Gly Met Glu Tyr Leu Ser Thr
645 650 655

Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Met Leu Asn
660 665 670

Glu Asn Met Ser Val Cys Val Ala Asp Phe Gly Leu Ser Lys Lys Ile
675 680 685

Tyr Asn Gly Asp Tyr Tyr Arg Gln Gly Arg Ile Ala Lys Met Pro Val
690 695 700

Lys Trp Ile Ala Ile Glu Ser Leu Ala Asp Arg Val Tyr Thr Ser Lys
705 710 715 720

Ser Asp Val Trp Ser Phe Gly Val Thr Met Trp Glu Ile Ala Thr Arg
725 730 735

Gly Gln Thr Pro Tyr Pro Gly Val Glu Asn Ser Glu Ile Tyr Asp Tyr
740 745 750

Leu Arg Gln Gly Asn Arg Leu Lys Gln Pro Ala Asp Cys Leu Asp Gly
755 760 765

Leu Tyr Ala Leu Met Ser Arg Cys Trp Glu Leu Asn Pro Gln Asp Arg
770 775 780

Pro Ser Phe Thr Glu Leu Arg Glu Asp Leu Glu Asn Thr Leu Lys Ala
785 790 795 800

Leu Pro Pro Ala Gln Glu Pro Asp Glu Ile Leu Tyr Val Asn Met Asp
805 810 815

Glu Gly Gly Gly Tyr Pro Glu Pro Pro Gly Ala Ala Gly Gly Ala Asp
820 825 830

Pro Pro Thr Gln Pro Asp Pro Lys Asp Ser Cys Ser Cys Leu Thr Ala
835 840 845

Ala Glu Val His Pro Ala Gly Arg Tyr Val Leu Cys Pro Ser Thr Thr
850 855 860

Pro Ser Pro Ala Gln Pro Ala Asp Arg Gly Ser Pro Ala Ala Pro Gly
865 870 875 880

Gln Glu Asp Gly Ala
885

<210> 53
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 53

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Met Leu Leu Gly Leu Ala Ala Met Glu Leu Lys Val Trp Val Asp Gly
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Ile Gln Arg Val Val Cys Gly Val Ser Glu Gln Thr Thr Cys Gln Glu
20          25          30

Val Val Ile Ala Leu Ala Gln Ala Ile Gly Gln Thr Gly Arg Phe Val
35          40          45

Leu Val Gln Arg Leu Arg Glu Lys Glu Arg Gln Leu Leu Pro Gln Glu
50          55          60

Cys Pro Val Gly Ala Gln Ala Thr Cys Gly Gln Phe Ala Ser Asp Val
65          70          75          80

Gln Phe Val Leu Arg Arg Thr Gly Pro Ser Leu Ala Gly Arg Pro Ser
85          90          95

Ser Asp Ser Cys Pro Pro Pro Glu Arg Cys Leu Ile Arg Ala Ser Leu
100         105         110

Pro Val Lys Pro Arg Ala Ala Leu Gly Cys Glu Pro Arg Lys Thr Leu
115         120         125

Thr Pro Glu Pro Ala Pro Ser Leu Ser Arg Pro Gly Pro Ala Ala Pro
130         135         140

Val Thr Pro Thr Pro Gly Cys Cys Thr Asp Leu Arg Gly Leu Glu Leu
145         150         155         160

Arg Val Gln Arg Asn Ala Glu Glu Leu Gly His Glu Ala Phe Trp Glu
165         170         175

Gln Glu Leu Arg Arg Glu Gln Ala Arg Glu Arg Glu Gly Gln Ala Arg
180         185         190

Leu Gln Ala Leu Ser Ala Ala Thr Ala Glu His Ala Ala Arg Leu Gln
195         200         205

Ala Leu Asp Ala Gln Ala Arg Ala Leu Glu Ala Glu Leu Gln Leu Ala
210         215         220

Ala Glu Ala Pro Gly Pro Pro Ser Pro Met Ala Ser Ala Thr Glu Arg
225         230         235         240

Leu His Gln Asp Leu Ala Val Gln Glu Arg Gln Ser Ala Glu Val Gln
245         250         255

Gly Ser Leu Ala Leu Val Ser Arg Ala Leu Glu Ala Ala Glu Arg Ala
260         265         270

Leu Gln Ala Gln Ala Gln Glu Leu Glu Glu Leu Asn Arg Glu Leu Arg
    
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275 280 285

Gln Cys Asn Leu Gln Gln Phe Ile Gln Gln Thr Gly Ala Ala Leu Pro
290 295 300

Pro Pro Pro Arg Pro Asp Arg Gly Pro Pro Gly Thr Gln Gly Pro Leu
305 310 315 320

Pro Pro Ala Arg Glu Glu Ser Leu Leu Gly Ala Pro Ser Glu Ser His
325 330 335

Ala Gly Ala Gln Pro Arg Pro Arg Gly Gly Pro His Asp Ala Glu Leu
340 345 350

Leu Glu Val Ala Ala Ala Pro Ala Pro Glu Trp Cys Pro Leu Ala Ala
355 360 365

Gln Pro Gln Ala Leu
370

<210> 54
<211> 289
<212> PRT
<213> Homo sapiens

<400> 54

Met Glu Leu Leu Cys His Glu Val Asp Pro Val Arg Arg Ala Val Arg
1 5 10 15

Asp Arg Asn Leu Leu Arg Asp Asp Arg Val Leu Gln Asn Leu Leu Thr
20 25 30

Ile Glu Glu Arg Tyr Leu Pro Gln Cys Ser Tyr Phe Lys Cys Val Gln
35 40 45

Lys Asp Ile Gln Pro Tyr Met Arg Arg Met Val Ala Thr Trp Met Leu
50 55 60

Glu Val Cys Glu Glu Gln Lys Cys Glu Glu Glu Val Phe Pro Leu Ala
65 70 75 80

Met Asn Tyr Leu Asp Arg Phe Leu Ala Gly Val Pro Thr Pro Lys Ser
85 90 95

His Leu Gln Leu Leu Gly Ala Val Cys Met Phe Leu Ala Ser Lys Leu
100 105 110

Lys Glu Thr Ser Pro Leu Thr Ala Glu Lys Leu Cys Ile Tyr Thr Asp
115 120 125

Asn Ser Ile Lys Pro Gln Glu Leu Leu Glu Trp Glu Leu Val Val Leu
130 135 140

Gly Lys Leu Lys Trp Asn Leu Ala Ala Val Thr Pro His Asp Phe Ile
145 150 155 160

Glu His Ile Leu Arg Lys Leu Pro Gln Gln Arg Glu Lys Leu Ser Leu
165 170 175

00010407 073301

Ile Arg Lys His Ala Gln Thr Phe Ile Ala Leu Cys Ala Thr Asp Phe
180 185 190

Lys Phe Ala Met Tyr Pro Pro Ser Met Ile Ala Thr Gly Ser Val Gly
195 200 205

Ala Ala Ile Cys Gly Leu Gln Gln Asp Glu Glu Val Ser Ser Leu Thr
210 215 220

Cys Asp Ala Leu Thr Glu Leu Leu Ala Lys Ile Thr Asn Thr Asp Val
225 230 235 240

Asp Cys Leu Lys Ala Cys Gln Glu Gln Ile Glu Ala Val Leu Leu Asn
245 250 255

Ser Leu Gln Gln Tyr Arg Gln Asp Gln Arg Asp Gly Ser Lys Ser Glu
260 265 270

Asp Glu Leu Asp Gln Ala Ser Thr Pro Thr Asp Val Arg Asp Ile Asp
275 280 285

Leu

<210> 55
<211> 693
<212> PRT
<213> Homo sapiens

<400> 55

Met Lys Glu Asn Tyr Cys Leu Gln Ala Ala Leu Val Cys Leu Gly Met
1 5 10 15

Leu Cys His Ser His Ala Phe Ala Pro Glu Arg Arg Gly His Leu Arg
20 25 30

Pro Ser Phe His Gly His His Glu Lys Gly Lys Glu Gly Gln Val Leu
35 40 45

Gln Arg Ser Lys Arg Gly Trp Val Trp Asn Gln Phe Phe Val Ile Glu
50 55 60

Glu Tyr Thr Gly Pro Asp Pro Val Leu Val Gly Arg Leu His Ser Asp
65 70 75 80

Ile Asp Ser Gly Asp Gly Asn Ile Lys Tyr Ile Leu Ser Gly Glu Gly
85 90 95

Ala Gly Thr Ile Phe Val Ile Asp Asp Lys Ser Gly Asn Ile His Ala
100 105 110

Thr Lys Thr Leu Asp Arg Glu Glu Arg Ala Gln Tyr Thr Leu Met Ala
115 120 125

Gln Ala Val Asp Arg Asp Thr Asn Arg Pro Leu Glu Pro Pro Ser Glu
130 135 140

Phe Ile Val Lys Val Gln Asp Ile Asn Asp Asn Pro Pro Glu Phe Leu
145 150 155 160

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His Glu Thr Tyr His Ala Asn Val Pro Glu Arg Ser Asn Val Gly Thr
165 170 175

Ser Val Ile Gln Val Thr Ala Ser Asp Ala Asp Asp Pro Thr Tyr Gly
180 185 190

Asn Ser Ala Lys Leu Val Tyr Ser Ile Leu Glu Gly Gln Pro Tyr Phe
195 200 205

Ser Val Glu Ala Gln Thr Gly Ile Ile Arg Thr Ala Leu Pro Asn Met
210 215 220

Asp Arg Glu Ala Lys Glu Glu Tyr His Val Val Ile Gln Ala Lys Asp
225 230 235 240

Met Gly Gly His Met Gly Gly Leu Ser Gly Thr Thr Lys Val Thr Ile
245 250 255

Thr Leu Thr Asp Val Asn Asp Asn Pro Lys Phe Pro Gln Ser Val
260 265 270

Tyr Gln Ile Ser Val Ser Glu Ala Ala Val Pro Gly Glu Glu Val Gly
275 280 285

Arg Val Lys Ala Lys Asp Pro Asp Ile Gly Glu Asn Gly Leu Val Thr
290 295 300

Tyr Asn Ile Val Asp Gly Asp Gly Met Glu Ser Phe Glu Ile Thr Thr
305 310 315 320

Asp Tyr Glu Thr Gln Glu Gly Val Ile Lys Leu Lys Lys Pro Val Asp
325 330 335

Phe Glu Thr Lys Arg Ala Tyr Ser Leu Lys Val Glu Ala Ala Asn Val
340 345 350

His Ile Asp Pro Lys Phe Ile Ser Asn Gly Pro Phe Lys Asp Thr Val
355 360 365

Thr Val Lys Ile Ala Val Glu Asp Ala Asp Glu Pro Pro Met Phe Leu
370 375 380

Ala Pro Ser Tyr Ile His Glu Val Gln Glu Asn Ala Ala Ala Gly Thr
385 390 395 400

Val Val Gly Arg Val His Ala Lys Asp Pro Asp Ala Ala Asn Ser Pro
405 410 415

Ile Arg Tyr Ser Ile Asp Arg His Thr Asp Leu Asp Arg Phe Phe Thr
420 425 430

Ile Asn Pro Glu Asp Gly Phe Ile Lys Thr Thr Lys Pro Leu Asp Arg
435 440 445

Glu Glu Thr Ala Trp Leu Asn Ile Thr Val Phe Ala Ala Glu Ile His
450 455 460

Asn Arg His Gln Glu Ala Lys Val Pro Val Ala Ile Arg Val Leu Asp
465 470 475 480

Val Asn Asp Asn Ala Pro Lys Phe Ala Ala Pro Tyr Glu Gly Phe Ile
485 490 495

Cys Glu Ser Asp Gln Thr Lys Pro Leu Ser Asn Gln Pro Ile Val Thr
500 505 510

Ile Ser Ala Asp Asp Lys Asp Asp Thr Ala Asn Gly Pro Arg Phe Ile
515 520 525

Phe Ser Leu Pro Pro Glu Ile Ile His Asn Pro Asn Phe Thr Val Arg
530 535 540

Asp Asn Arg Asp Asn Thr Ala Gly Val Tyr Ala Arg Arg Gly Gly Phe
545 550 555 560

Ser Arg Gln Lys Gln Asp Leu Tyr Leu Leu Pro Ile Val Ile Ser Asp
565 570 575

Gly Gly Ile Pro Pro Met Ser Ser Thr Asn Thr Leu Thr Ile Lys Val
580 585 590

Cys Gly Cys Asp Val Asn Gly Ala Leu Leu Ser Cys Asn Ala Glu Ala
595 600 605

Tyr Ile Leu Asn Ala Gly Leu Ser Thr Gly Ala Leu Ile Ala Ile Leu
610 615 620

Ala Cys Ile Val Ile Leu Leu Gly Cys Pro Ser Leu Met Glu Pro Pro
625 630 635 640

Ser Pro Arg Glu Asp Met Arg Leu Leu Tyr Leu Gly Phe Gln Leu Met
645 650 655

Leu Phe Ser Tyr Val Lys Val Asn Arg Arg Phe Cys Leu Leu Gly Val
660 665 670

Phe Ile Lys Leu Pro Phe Leu Tyr Val Val Ala Thr Glu Ser Pro Thr
675 680 685

Thr Leu Thr Ser Leu
690

<210> 56
<211> 1806
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (758)..(758)
<223> Xaa = any amino acid

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00010497 073001

<400> 56

Met Glu Pro Trp Ser Ser Arg Trp Lys Thr Lys Arg Trp Leu Trp Asp
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Phe Thr Val Thr Thr Leu Ala Leu Thr Phe Leu Phe Gln Ala Arg Glu
20 25 30

Val Arg Gly Ala Ala Pro Val Asp Val Leu Lys Ala Leu Asp Phe His
35 40 45

Asn Ser Pro Glu Gly Ile Ser Lys Thr Thr Gly Phe Cys Thr Asn Arg
50 55 60

Lys Asn Ser Lys Gly Ser Asp Thr Ala Tyr Arg Val Ser Lys Gln Ala
65 70 75 80

Gln Leu Ser Ala Pro Thr Lys Gln Leu Phe Pro Gly Gly Thr Phe Pro
85 90 95

Glu Asp Phe Ser Ile Leu Phe Thr Val Lys Pro Lys Lys Gly Ile Gln
100 105 110

Ser Phe Leu Leu Ser Ile Tyr Asn Glu His Gly Ile Gln Gln Ile Gly
115 120 125

Val Glu Val Gly Arg Ser Pro Val Phe Leu Phe Glu Asp His Thr Gly
130 135 140

Lys Pro Ala Pro Glu Asp Tyr Pro Leu Phe Arg Thr Val Asn Ile Ala
145 150 155 160

Asp Gly Lys Trp His Arg Val Ala Ile Ser Val Glu Lys Lys Thr Val
165 170 175

Thr Met Ile Val Asp Cys Lys Lys Lys Thr Thr Lys Pro Leu Asp Arg
180 185 190

Ser Glu Arg Ala Ile Val Asp Thr Asn Gly Ile Thr Val Phe Gly Thr
195 200 205

Arg Ile Leu Asp Glu Glu Val Phe Glu Gly Asp Ile Gln Gln Phe Leu
210 215 220

Ile Thr Gly Asp Pro Lys Ala Ala Tyr Asp Tyr Cys Glu His Tyr Ser
225 230 235 240

Pro Asp Cys Asp Ser Ser Ala Pro Lys Ala Ala Gln Ala Gln Glu Pro
245 250 255

Gln Ile Asp Glu Tyr Ala Pro Glu Asp Ile Ile Glu Tyr Asp Tyr Glu
260 265 270

Tyr Gly Glu Ala Glu Tyr Lys Glu Ala Glu Ser Val Thr Glu Gly Pro
275 280 285

Thr Val Thr Glu Glu Thr Ile Ala Gln Thr Glu Ala Asn Ile Val Asp
290 295 300

Asp Phe Gln Glu Tyr Asn Tyr Gly Thr Met Glu Ser Tyr Gln Thr Glu

305		310		315		320
Ala Pro Arg His Val Ser Gly Thr Asn Glu Pro Asn Pro Val Glu Glu						
		325		330		335
Ile Phe Thr Glu Glu Tyr Leu Thr Gly Glu Asp Tyr Asp Ser Gln Arg						
		340		345		350
Lys Asn Ser Glu Asp Thr Leu Tyr Glu Asn Lys Glu Ile Asp Gly Arg						
		355		360		365
Asp Ser Asp Leu Leu Val Asp Gly Asp Leu Gly Glu Tyr Asp Phe Tyr						
		370		375		380
Glu Tyr Lys Glu Tyr Glu Asp Lys Pro Thr Ser Pro Pro Asn Glu Glu						
		385		390		395
Phe Gly Pro Gly Val Pro Ala Glu Thr Asp Ile Thr Glu Thr Ser Ile						
		405		410		415
Asn Gly His Gly Ala Tyr Gly Glu Lys Gly Gln Lys Gly Glu Pro Ala						
		420		425		430
Val Val Glu Pro Gly Met Leu Val Glu Gly Pro Pro Gly Pro Ala Gly						
		435		440		445
Pro Ala Gly Ile Met Gly Pro Pro Gly Leu Gln Gly Pro Thr Gly Pro						
		450		455		460
Pro Gly Asp Pro Gly Asp Arg Gly Pro Pro Gly Arg Pro Gly Leu Pro						
		465		470		475
Gly Ala Asp Gly Leu Pro Gly Pro Pro Gly Thr Met Leu Met Leu Pro						
		485		490		495
Phe Arg Tyr Gly Gly Asp Gly Ser Lys Gly Pro Thr Ile Ser Ala Gln						
		500		505		510
Glu Ala Gln Ala Gln Ala Ile Leu Gln Gln Ala Arg Ile Ala Leu Arg						
		515		520		525
Gly Pro Pro Gly Pro Met Gly Leu Thr Gly Arg Pro Gly Pro Val Gly						
		530		535		540
Gly Pro Gly Ser Ser Gly Ala Lys Gly Glu Ser Gly Asp Pro Gly Pro						
		545		550		555
Gln Gly Pro Arg Gly Val Gln Gly Pro Pro Gly Pro Thr Gly Lys Pro						
		565		570		575
Gly Lys Arg Gly Arg Pro Gly Ala Asp Gly Gly Arg Gly Met Pro Gly						
		580		585		590
Glu Pro Gly Ala Lys Gly Asp Arg Gly Phe Asp Gly Leu Pro Gly Leu						
		595		600		605
Pro Gly Asp Lys Gly His Arg Gly Glu Arg Gly Pro Gln Gly Pro Pro						
		610		615		620
Gly Pro Pro Gly Asp Asp Gly Met Arg Gly Glu Asp Gly Glu Ile Gly						

[illegible]

945		950		955		960
Gly Pro Pro Gly	Pro Gly Gly Val Val Gly	Pro Gln Gly Pro Thr Gly				
	965	970			975	
Glu Thr Gly Pro Ile Gly	Glu Arg Gly Tyr Pro Gly Pro	Pro Gly Pro				
	980	985			990	
Pro Gly Glu Gln Gly Leu	Pro Gly Ala Ala Gly Lys Glu Gly Ala Lys					
	995	1000			1005	
Gly Asp Pro Gly Pro Gln Gly	Ile Ser Gly Lys Asp Gly Pro Ala					
	1010	1015			1020	
Gly Leu Arg Gly Phe Pro Gly	Glu Arg Gly Leu Pro Gly Ala Gln					
	1025	1030			1035	
Gly Ala Pro Gly Leu Lys Gly	Gly Glu Gly Pro Gln Gly Pro Pro					
	1040	1045			1050	
Gly Pro Val Gly Ser Pro Gly	Glu Arg Gly Ser Ala Gly Thr Ala					
	1055	1060			1065	
Gly Pro Ile Gly Leu Arg Gly	Arg Pro Gly Pro Gln Gly Pro Pro					
	1070	1075			1080	
Gly Pro Ala Gly Glu Lys Gly	Ala Pro Gly Glu Lys Gly Pro Gln					
	1085	1090			1095	
Gly Pro Ala Gly Arg Asp Gly	Val Gln Gly Pro Val Gly Leu Pro					
	1100	1105			1110	
Gly Pro Ala Gly Pro Ala Gly	Ser Pro Gly Glu Asp Gly Asp Lys					
	1115	1120			1125	
Gly Glu Ile Gly Glu Pro Gly	Gln Lys Gly Ser Lys Gly Gly Lys					
	1130	1135			1140	
Gly Glu Asn Gly Pro Pro Gly	Pro Pro Gly Leu Gln Gly Pro Val					
	1145	1150			1155	
Gly Ala Pro Gly Ile Ala Gly	Gly Asp Gly Glu Pro Gly Pro Arg					
	1160	1165			1170	
Gly Gln Gln Gly Met Phe Gly	Gln Lys Gly Asp Glu Gly Ala Arg					
	1175	1180			1185	
Gly Phe Pro Gly Pro Pro Gly	Pro Ile Gly Leu Gln Gly Leu Pro					
	1190	1195			1200	
Gly Pro Pro Gly Glu Lys Gly	Glu Asn Gly Asp Val Gly Pro Trp					
	1205	1210			1215	
Gly Pro Pro Gly Pro Pro Gly	Pro Arg Gly Pro Gln Gly Pro Asn					
	1220	1225			1230	
Gly Ala Asp Gly Pro Gln Gly	Pro Pro Gly Ser Val Gly Ser Val					
	1235	1240			1245	
Gly Gly Val Gly Glu Lys Gly	Glu Pro Gly Glu Ala Gly Asn Pro					

1250					1255					1260				
Gly	Pro	Pro	Gly	Glu	Ala	Gly	Val	Gly	Gly	Pro	Lys	Gly	Glu	Arg
1265					1270					1275				
Gly	Glu	Lys	Gly	Glu	Ala	Gly	Pro	Pro	Gly	Ala	Ala	Gly	Pro	Pro
1280					1285					1290				
Gly	Ala	Lys	Gly	Pro	Pro	Gly	Asp	Asp	Gly	Pro	Lys	Gly	Asn	Pro
1295					1300					1305				
Gly	Pro	Val	Gly	Phe	Pro	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Glu	Leu
1310					1315					1320				
Gly	Pro	Ala	Gly	Gln	Asp	Gly	Val	Gly	Gly	Asp	Lys	Gly	Glu	Asp
1325					1330					1335				
Gly	Asp	Pro	Gly	Gln	Pro	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Glu	Ala
1340					1345					1350				
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Lys	Arg	Gly	Pro	Pro	Gly	Ala	Ala
1355					1360					1365				
Gly	Ala	Glu	Gly	Arg	Gln	Gly	Glu	Lys	Gly	Ala	Lys	Gly	Glu	Ala
1370					1375					1380				
Gly	Ala	Glu	Gly	Pro	Pro	Gly	Lys	Thr	Gly	Pro	Val	Gly	Pro	Gln
1385					1390					1395				
Gly	Pro	Ala	Gly	Lys	Pro	Gly	Pro	Glu	Gly	Leu	Arg	Gly	Ile	Pro
1400					1405					1410				
Gly	Pro	Val	Gly	Glu	Gln	Gly	Leu	Pro	Gly	Ala	Ala	Gly	Gln	Asp
1415					1420					1425				
Gly	Pro	Pro	Gly	Pro	Met	Gly	Pro	Pro	Gly	Leu	Pro	Gly	Leu	Lys
1430					1435					1440				
Gly	Asp	Pro	Gly	Ser	Lys	Gly	Glu	Lys	Gly	His	Pro	Gly	Leu	Ile
1445					1450					1455				
Gly	Leu	Ile	Gly	Pro	Pro	Gly	Glu	Gln	Gly	Glu	Lys	Gly	Asp	Arg
1460					1465					1470				
Gly	Leu	Pro	Gly	Thr	Gln	Gly	Ser	Pro	Gly	Ala	Lys	Gly	Asp	Gly
1475					1480					1485				
Gly	Ile	Pro	Gly	Pro	Ala	Gly	Pro	Leu	Gly	Pro	Pro	Gly	Pro	Pro
1490					1495					1500				
Gly	Leu	Pro	Gly	Pro	Gln	Gly	Pro	Lys	Gly	Asn	Lys	Gly	Ser	Thr
1505					1510					1515				
Gly	Pro	Ala	Gly	Gln	Lys	Gly	Asp	Ser	Gly	Leu	Pro	Gly	Pro	Pro
1520					1525					1530				
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Glu	Val	Ile	Gln	Pro	Gly	Leu	Ile
1535					1540					1545				
Leu	Ser	Ser	Lys	Lys	Thr	Arg	Arg	His	Thr	Glu	Gly	Met	Gln	Ala

1550	1555	1560
Asp Ala Asp Asp Asn Ile Leu Asp Tyr Ser Asp Gly Met Glu Glu 1565 1570 1575		
Ile Phe Gly Ser Leu Asn Ser Leu Lys Gln Asp Ile Glu His Met 1580 1585 1590		
Lys Phe Pro Met Gly Thr Gln Thr Asn Pro Ala Arg Thr Cys Lys 1595 1600 1605		
Asp Leu Gln Leu Ser His Pro Asp Phe Pro Asp Gly Glu Tyr Trp 1610 1615 1620		
Ile Asp Pro Asn Gln Gly Cys Ser Gly Asp Ser Phe Lys Val Tyr 1625 1630 1635		
Cys Asn Phe Thr Ser Gly Gly Glu Thr Cys Ile Tyr Pro Asp Lys 1640 1645 1650		
Lys Ser Glu Gly Val Arg Ile Ser Ser Trp Pro Lys Glu Lys Pro 1655 1660 1665		
Gly Ser Trp Phe Ser Glu Phe Lys Arg Gly Lys Leu Leu Ser Tyr 1670 1675 1680		
Leu Asp Val Glu Gly Asn Ser Ile Asn Met Val Gln Met Thr Phe 1685 1690 1695		
Leu Lys Leu Leu Thr Ala Ser Ala Arg Gln Asn Phe Thr Tyr His 1700 1705 1710		
Cys His Gln Ser Ala Ala Trp Tyr Asp Val Ser Ser Gly Ser Tyr 1715 1720 1725		
Asp Lys Ala Leu Arg Phe Leu Gly Ser Asn Asp Glu Glu Met Ser 1730 1735 1740		
Tyr Asp Asn Asn Pro Phe Ile Lys Thr Leu Tyr Asp Gly Cys Thr 1745 1750 1755		
Ser Arg Lys Gly Tyr Glu Lys Thr Val Ile Glu Ile Asn Thr Pro 1760 1765 1770		
Lys Ile Asp Gln Val Pro Ile Val Asp Val Met Ile Ser Asp Phe 1775 1780 1785		
Gly Asp Gln Asn Gln Lys Phe Gly Phe Glu Val Gly Pro Val Cys 1790 1795 1800		
Phe Leu Gly 1805		
<210> 57		
<211> 755		
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<400> 57		

Cys Lys Ala Ala Lys Ala Asp Leu Val Phe Met Val Asp Gly Ser Trp
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 Ser Ile Gly Asp Glu Asn Phe Asn Lys Ile Ile Ser Phe Leu Tyr Ser
 20 25 30
 Thr Val Gly Ala Leu Asn Lys Ile Gly Thr Asp Gly Thr Gln Val Ala
 35 40 45
 Met Val Gln Phe Thr Asp Asp Pro Arg Thr Glu Phe Lys Leu Asn Ala
 50 55 60
 Tyr Lys Thr Lys Glu Thr Leu Leu Asp Ala Ile Lys His Ile Ser Tyr
 65 70 75 80
 Lys Gly Gly Asn Thr Lys Thr Gly Lys Ala Ile Lys Tyr Val Arg Asp
 85 90 95
 Thr Leu Phe Thr Ala Glu Ser Gly Thr Arg Arg Gly Ile Pro Lys Val
 100 105 110
 Ile Val Val Ile Thr Asp Gly Arg Ser Gln Asp Asp Val Asn Lys Ile
 115 120 125
 Ser Arg Glu Met Gln Leu Asp Gly Tyr Ser Ile Phe Ala Ile Gly Val
 130 135 140
 Ala Asp Ala Asp Tyr Ser Glu Leu Val Ser Ile Gly Ser Lys Pro Ser
 145 150 155 160
 Ala Arg His Val Phe Phe Val Asp Asp Phe Asp Ala Phe Lys Lys Ile
 165 170 175
 Glu Asp Glu Leu Ile Thr Phe Val Cys Glu Thr Ala Ser Ala Thr Cys
 180 185 190
 Pro Val Val His Lys Asp Gly Ile Asp Leu Ala Gly Phe Lys Met Met
 195 200 205
 Glu Met Phe Gly Leu Val Glu Lys Asp Phe Ser Ser Val Glu Gly Val
 210 215 220
 Ser Met Glu Pro Gly Thr Phe Asn Val Phe Pro Cys Tyr Gln Leu His
 225 230 235 240
 Lys Asp Ala Leu Val Ser Gln Pro Thr Arg Tyr Leu His Pro Glu Gly
 245 250 255
 Leu Pro Ser Asp Tyr Thr Ile Ser Phe Leu Phe Arg Ile Leu Pro Asp
 260 265 270
 Thr Pro Gln Glu Pro Phe Ala Leu Trp Glu Ile Leu Asn Lys Asn Ser
 275 280 285
 Asp Pro Leu Val Gly Val Ile Leu Asp Asn Gly Gly Lys Thr Leu Thr
 290 295 300
 Tyr Phe Asn Tyr Asp Gln Ser Gly Asp Phe Gln Thr Val Thr Phe Glu
 305 310 315 320

Gly Pro Glu Ile Arg Lys Ile Phe Tyr Gly Ser Phe His Lys Leu His
325 330 335

Ile Val Val Ser Glu Thr Leu Val Lys Val Val Ile Asp Cys Lys Gln
340 345 350

Val Gly Glu Lys Ala Met Asn Ala Ser Ala Asn Ile Thr Ser Asp Gly
355 360 365

Val Glu Val Leu Gly Lys Met Val Arg Ser Arg Gly Pro Gly Gly Asn
370 375 380

Ser Ala Pro Phe Gln Leu Gln Met Phe Asp Ile Val Cys Ser Thr Ser
385 390 395 400

Trp Ala Asn Thr Asp Lys Cys Cys Glu Leu Pro Gly Leu Arg Asp Asp
405 410 415

Glu Ser Cys Pro Asp Leu Pro His Ser Cys Ser Cys Ser Glu Thr Asn
420 425 430

Glu Val Ala Leu Gly Pro Ala Gly Pro Pro Gly Gly Pro Gly Leu Arg
435 440 445

Gly Pro Lys Gly Gln Gln Gly Glu Pro Gly Pro Lys Gly Pro Asp Gly
450 455 460

Pro Arg Gly Glu Ile Gly Leu Pro Gly Pro Gln Gly Pro Pro Gly Pro
465 470 475 480

Gln Gly Pro Ser Gly Leu Ser Ile Gln Gly Met Pro Gly Met Pro Gly
485 490 495

Glu Lys Gly Glu Lys Gly Asp Thr Gly Leu Pro Gly Pro Gln Gly Ile
500 505 510

Pro Gly Gly Val Gly Ser Pro Gly Arg Asp Gly Ser Pro Gly Gln Arg
515 520 525

Gly Leu Pro Gly Lys Asp Gly Ser Ser Gly Pro Pro Gly Pro Pro Gly
530 535 540

Pro Ile Gly Ile Pro Gly Thr Pro Gly Val Pro Gly Ile Thr Gly Ser
545 550 555 560

Met Gly Pro Gln Gly Ala Leu Gly Pro Pro Gly Val Pro Gly Ala Lys
565 570 575

Gly Glu Arg Gly Glu Arg Gly Asp Leu Gln Ser Gln Ala Met Val Arg
580 585 590

Ser Val Ala Arg Gln Val Cys Glu Gln Leu Ile Gln Ser His Met Ala
595 600 605

Arg Tyr Thr Ala Ile Leu Asn Gln Ile Pro Ser His Ser Ser Ser Ile
610 615 620

Arg Thr Val Gln Gly Pro Pro Gly Glu Pro Gly Arg Pro Gly Ser Pro
625 630 635 640

Gly Ala Pro Gly Glu Gln Gly Pro Pro Gly Thr Pro Gly Phe Pro Gly
645 650 655

Asn Ala Gly Val Pro Gly Thr Pro Gly Glu Arg Gly Leu Thr Gly Ile
660 665 670

Lys Gly Glu Lys Gly Asn Pro Gly Val Gly Thr Gln Gly Pro Arg Gly
675 680 685

Pro Pro Gly Pro Ala Gly Pro Ser Gly Glu Ser Arg Pro Gly Ser Pro
690 695 700

Gly Pro Pro Gly Ser Pro Gly Pro Arg Gly Pro Pro Gly His Leu Gly
705 710 715 720

Val Pro Gly Pro Gln Gly Pro Ser Gly Gln Pro Gly Tyr Cys Asp Pro
725 730 735

Ser Ser Cys Ser Ala Tyr Gly Val Arg Asp Leu Ile Pro Tyr Asn Asp
740 745 750

Tyr Gln His
755

<210> 58
<211> 543
<212> PRT
<213> Homo sapiens

<400> 58

Met Gly Thr Ser Leu Ser Pro Asn Asp Pro Trp Pro Leu Asn Pro Leu
1 5 10 15

Ser Ile Gln Gln Thr Thr Leu Leu Leu Leu Leu Ser Val Leu Ala Thr
20 25 30

Val His Val Gly Gln Arg Leu Leu Arg Gln Arg Arg Gln Leu Arg
35 40 45

Ser Ala Pro Pro Gly Pro Phe Ala Trp Pro Leu Ile Gly Asn Ala Ala
50 55 60

Ala Val Gly Gln Ala Ala His Leu Ser Phe Ala Arg Leu Ala Arg Arg
65 70 75 80

Tyr Gly Asp Val Phe Gln Ile Arg Leu Gly Ser Cys Pro Ile Val Val
85 90 95

Leu Asn Gly Glu Arg Ala Ile His Gln Ala Leu Val Gln Gln Gly Ser
100 105 110

Ala Phe Ala Asp Arg Pro Ala Phe Ala Ser Phe Arg Val Val Ser Gly
115 120 125

Gly Arg Ser Met Ala Phe Gly His Tyr Ser Glu His Trp Lys Val Gln
130 135 140

Arg Arg Ala Ala His Ser Met Met Arg Asn Phe Phe Thr Arg Gln Pro
145 150 155 160

Arg	Ser	Arg	Gln	Val	Leu	Glu	Gly	His	Val	Leu	Ser	Glu	Ala	Arg	Glu	
			165							170				175		
Leu	Val	Ala	Leu	Leu	Val	Arg	Gly	Ser	Ala	Asp	Gly	Ala	Phe	Leu	Asp	
			180				185						190			
Pro	Arg	Pro	Leu	Thr	Val	Val	Ala	Val	Ala	Asn	Val	Met	Ser	Ala	Val	
			195				200						205			
Cys	Phe	Gly	Cys	Arg	Tyr	Ser	His	Asp	Asp	Pro	Glu	Phe	Arg	Glu	Leu	
			210				215						220			
Leu	Ser	His	Asn	Glu	Glu	Phe	Gly	Arg	Thr	Val	Gly	Ala	Gly	Ser	Leu	
			225	230						235			240			
Val	Asp	Val	Met	Pro	Trp	Leu	Gln	Tyr	Phe	Pro	Asn	Pro	Val	Arg	Thr	
			245							250			255			
Val	Phe	Arg	Glu	Phe	Glu	Gln	Leu	Asn	Arg	Asn	Phe	Ser	Asn	Phe	Ile	
			260				265						270			
Leu	Asp	Lys	Phe	Leu	Arg	His	Cys	Glu	Ser	Leu	Arg	Pro	Gly	Ala	Ala	
			275				280						285			
Pro	Arg	Asp	Met	Met	Asp	Ala	Phe	Ile	Leu	Ser	Ala	Glu	Lys	Lys	Ala	
			290				295			300						
Ala	Gly	Asp	Ser	His	Gly	Gly	Gly	Ala	Arg	Leu	Asp	Leu	Glu	Asn	Val	
			305	310						315			320			
Pro	Ala	Thr	Ile	Thr	Asp	Ile	Phe	Gly	Ala	Ser	Gln	Asp	Thr	Leu	Ser	
			325				330						335			
Thr	Ala	Leu	Gln	Trp	Leu	Leu	Leu	Leu	Phe	Thr	Arg	Tyr	Pro	Asp	Val	
			340				345						350			
Gln	Thr	Arg	Val	Gln	Ala	Glu	Leu	Asp	Gln	Val	Val	Gly	Arg	Asp	Arg	
			355				360						365			
Leu	Pro	Cys	Met	Gly	Asp	Gln	Pro	Asn	Leu	Pro	Tyr	Val	Leu	Ala	Phe	
			370				375						380			
Leu	Tyr	Glu	Ala	Met	Arg	Phe	Ser	Ser	Phe	Val	Pro	Val	Thr	Ile	Pro	
			385	390						395			400			
His	Ala	Thr	Thr	Ala	Asn	Thr	Ser	Val	Leu	Gly	Tyr	His	Ile	Pro	Lys	
			405				410						415			
Asp	Thr	Val	Val	Phe	Val	Asn	Gln	Trp	Ser	Val	Asn	His	Asp	Pro	Val	
			420				425						430			
Lys	Trp	Pro	Asn	Pro	Glu	Asn	Phe	Asp	Pro	Ala	Arg	Phe	Leu	Asp	Lys	
			435				440						445			
Asp	Gly	Leu	Ile	Asn	Lys	Asp	Leu	Thr	Ser	Arg	Val	Met	Ile	Phe	Ser	
			450				455						460			
Val	Gly	Lys	Arg	Arg	Cys	Ile	Gly	Glu	Glu	Leu	Ser	Lys	Met	Gln	Leu	
			465	470						475			480			

Gly Pro Lys Gly Leu Gly Phe Ser Ile Ala Gly Gly Val Gly Asn Gln

210		215		220
His Ile Pro Gly Asp Asn Ser Ile Tyr Val Thr Lys Ile Ile Glu Gly				
225		230		240
Gly Ala Ala His Lys Asp Gly Arg Leu Gln Ile Gly Asp Lys Ile Leu				
	245		250	255
Ala Val Asn Ser Val Gly Leu Glu Asp Val Met His Glu Asp Ala Val				
	260		265	270
Ala Ala Leu Lys Asn Thr Tyr Asp Val Val Tyr Leu Lys Val Ala Lys				
	275		280	285
Pro Ser Asn Ala Tyr Leu Ser Asp Ser Tyr Ala Pro Pro Asp Ile Thr				
	290		295	300
Thr Ser Tyr Ser Gln His Leu Asp Asn Glu Ile Ser His Ser Ser Tyr				
	305		310	315
Leu Gly Thr Asp Tyr Pro Thr Ala Met Thr Pro Thr Ser Pro Arg Arg				
	325		330	335
Tyr Ser Pro Val Ala Lys Asp Leu Leu Gly Glu Glu Asp Ile Pro Arg				
	340		345	350
Glu Pro Arg Arg Ile Val Ile His Arg Gly Ser Thr Gly Leu Gly Phe				
	355		360	365
Asn Ile Val Gly Gly Glu Asp Gly Glu Gly Ile Phe Ile Ser Phe Ile				
	370		375	380
Leu Ala Gly Gly Pro Ala Asp Leu Ser Gly Glu Leu Arg Lys Gly Asp				
	385		390	395
Gln Ile Leu Ser Val Asn Gly Val Asp Leu Arg Asn Ala Ser His Glu				
	405		410	415
Gln Ala Ala Ile Ala Leu Lys Asn Ala Gly Gln Thr Val Thr Ile Ile				
	420		425	430
Ala Gln Tyr Lys Pro Glu Glu Tyr Ser Arg Phe Glu Ala Lys Ile His				
	435		440	445
Asp Leu Arg Glu Gln Leu Met Asn Ser Ser Leu Gly Ser Gly Thr Ala				
	450		455	460
Ser Leu Arg Ser Asn Pro Lys Arg Gly Phe Tyr Ile Arg Ala Leu Phe				
	465		470	475
Asp Tyr Asp Lys Thr Lys Asp Cys Gly Phe Leu Ser Gln Ala Leu Ser				
	485		490	495
Phe Arg Phe Gly Asp Val Leu His Val Ile Asp Ala Ser Asp Glu Glu				
	500		505	510
Trp Trp Gln Ala Arg Arg Val His Ser Asp Ser Glu Thr Asp Asp Ile				
	515		520	525
Gly Phe Ile Pro Ser Lys Arg Arg Val Glu Arg Arg Glu Trp Ser Arg				

0310497 031141

530 535 540

Leu Lys Ala Lys Asp Trp Gly Ser Ser Ser Gly Ser Gln Gly Arg Glu
545 550 555 560

Asp Ser Val Leu Ser Tyr Glu Thr Val Thr Gln Met Glu Val His Tyr
565 570 575

Ala Arg Pro Ile Ile Ile Leu Gly Pro Thr Lys Asp Arg Ala Asn Asp
580 585 590

Asp Leu Leu Ser Glu Phe Pro Asp Lys Phe Gly Ser Cys Val Pro His
595 600 605

Thr Thr Arg Pro Lys Arg Glu Tyr Glu Ile Asp Gly Arg Asp Tyr His
610 615 620

Phe Val Ser Ser Arg Glu Lys Met Glu Lys Asp Ile Gln Ala His Lys
625 630 635 640

Phe Ile Glu Ala Gly Gln Tyr Asn Ser His Leu Tyr Gly Thr Ser Val
645 650 655

Gln Ser Val Arg Glu Val Ala Glu Gln Gly Lys His Cys Ile Leu Asp
660 665 670

Val Ser Ala Asn Ala Val Arg Arg Leu Gln Ala Ala His Leu His Pro
675 680 685

Ile Ala Ile Phe Ile Arg Pro Arg Ser Leu Glu Asn Val Leu Glu Ile
690 695 700

Asn Lys Arg Ile Thr Glu Glu Gln Ala Arg Lys Ala Phe Asp Arg Ala
705 710 715 720

Thr Lys Leu Glu Gln Glu Phe Thr Glu Cys Phe Ser Ala Ile Val Glu
725 730 735

Gly Asp Ser Phe Glu Glu Ile Tyr His Lys Val Lys Arg Val Ile Glu
740 745 750

Asp Leu Ser Gly Pro Tyr Ile Trp Val Pro Ala Arg Glu Arg Leu
755 760 765

<210> 60
<211> 367
<212> PRT
<213> Homo sapiens

<400> 60

Met Val Met Glu Val Gly Thr Leu Asp Ala Gly Gly Leu Arg Ala Leu
1 5 10 15

Leu Gly Glu Arg Ala Ala Gln Cys Leu Leu Leu Asp Cys Arg Ser Phe
20 25 30

Phe Ala Phe Asn Ala Gly His Ile Ala Gly Ser Val Asn Val Arg Phe
35 40 45

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Ser Thr Ile Val Arg Arg Arg Ala Lys Gly Ala Met Gly Leu Glu His
50 55 60

Ile Val Pro Asn Ala Glu Leu Arg Gly Arg Leu Leu Ala Gly Ala Tyr
65 70 75 80

His Ala Val Val Leu Leu Asp Glu Arg Ser Ala Ala Leu Asp Gly Ala
85 90 95

Lys Arg Asp Gly Thr Leu Ala Leu Ala Ala Gly Ala Leu Cys Arg Glu
100 105 110

Ala Arg Ala Ala Gln Val Phe Phe Leu Lys Gly Gly Tyr Glu Ala Phe
115 120 125

Ser Ala Ser Cys Pro Glu Leu Cys Ser Lys Gln Ser Thr Pro Met Gly
130 135 140

Leu Ser Leu Pro Leu Ser Thr Ser Val Pro Asp Ser Ala Glu Ser Gly
145 150 155 160

Cys Ser Ser Cys Ser Thr Pro Leu Tyr Asp Gln Gly Gly Pro Val Glu
165 170 175

Ile Leu Pro Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys
180 185 190

Asp Met Leu Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala
195 200 205

Asn Cys Pro Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro
210 215 220

Val Glu Asp Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala
225 230 235 240

Ile Asp Phe Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val
245 250 255

His Cys Gln Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr
260 265 270

Leu Met Arg Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val
275 280 285

Lys Gln Arg Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln
290 295 300

Leu Leu Gln Phe Glu Ser Gln Val Leu Ala Pro His Cys Ser Ala Glu
305 310 315 320

Ala Gly Ser Pro Ala Met Ala Val Leu Asp Arg Gly Thr Ser Thr Thr
325 330 335

Thr Val Phe Asn Phe Pro Val Ser Ile Pro Val His Ser Thr Asn Ser
340 345 350

Ala Leu Ser Tyr Leu Gln Ser Pro Ile Thr Thr Ser Pro Ser Cys
355 360 365

<400> 61

Met	Ala	Ala	Ala	Ala	Glu	Pro	Ala	Ser	Ser	Gly	Gln	Gln	Ala	Pro	Ala	Gly
1					5					10					15	
Gln	Gly	Gln	Gly	Gln	Arg	Pro	Pro	Pro	Gln	Pro	Pro	Gln	Ala	Gln	Ala	
				20				25					30			
Pro	Gln	Pro	Pro	Pro	Pro	Pro	Gln	Leu	Gly	Gly	Ala	Gly	Gly	Gly	Ser	
		35					40					45				
Ser	Arg	His	Glu	Lys	Ser	Leu	Gly	Leu	Leu	Thr	Thr	Lys	Phe	Val	Ser	
	50					55				60						
Leu	Leu	Gln	Glu	Ala	Lys	Asp	Gly	Val	Leu	Asp	Leu	Lys	Ala	Ala	Ala	
65					70					75					80	
Asp	Thr	Leu	Ala	Val	Arg	Gln	Lys	Arg	Arg	Ile	Tyr	Asp	Ile	Thr	Asn	
				85					90					95		
Val	Leu	Glu	Gly	Ile	Asp	Leu	Ile	Glu	Lys	Lys	Ser	Lys	Asn	Ser	Ile	
				100				105					110			
Gln	Trp	Lys	Gly	Val	Gly	Ala	Gly	Cys	Asn	Thr	Lys	Glu	Val	Ile	Asp	
		115					120					125				
Arg	Leu	Arg	Tyr	Leu	Lys	Ala	Glu	Ile	Glu	Asp	Leu	Glu	Leu	Lys	Glu	
				130		135					140					
Arg	Glu	Leu	Asp	Gln	Gln	Lys	Leu	Trp	Leu		Gln	Gln	Ser	Ile	Lys	Asn
145					150					155						160
Val	Met	Asp	Asp	Ser	Ile	Asn	Asn	Arg	Phe	Ser	Tyr	Val	Thr	His	Glu	
				165					170					175		
Asp	Ile	Cys	Asn	Cys	Phe	Asn	Gly	Asp	Thr	Leu	Leu	Ala	Ile	Gln	Ala	
			180					185					190			
Pro	Ser	Gly	Thr	Gln	Leu	Glu	Val	Pro	Ile	Pro	Glu	Met	Gly	Gln	Asn	
			195				200					205				
Gly	Gln	Lys	Lys	Tyr	Gln	Ile	Asn	Leu	Lys	Ser	His	Ser	Gly	Pro	Ile	
					215						220					
His	Val	Leu	Leu	Ile	Asn	Lys	Glu	Ser	Ser	Ser	Ser	Lys	Pro	Val	Val	
225					230					235					240	
Phe	Pro	Val	Pro	Pro	Pro	Asp	Asp	Leu	Thr	Gln	Pro	Ser	Ser	Ser	Gln	Ser
				245					250						255	
Leu	Thr	Pro	Val	Thr	Pro	Gln	Lys	Ser	Ser	Met	Ala	Thr	Gln	Asn	Leu	
				260				265					270			
Pro	Glu	Gln	His	Val	Ser	Glu	Arg	Ser	Gln	Ala	Leu	Gln	Gln	Thr	Ser	
		275					280					285				

Ala Thr Asp Ile Ser Ser Gly Ser Ile Ser Gly Asp Ile Ile Asp Glu
290 295 300

Leu Met Ser Ser Asp Val Phe Pro Leu Leu Arg Leu Ser Pro Thr Pro
305 310 315 320

Ala Asp Asp Tyr Asn Phe Asn Leu Asp Asp Asn Glu Gly Val Cys Asp
325 330 335

Leu Phe Asp Val Gln Ile Leu Asn Tyr
340 345

<210> 62

<211> 427

<212> PRT

<213> Homo sapiens

<400> 62

Met Glu Thr Leu Cys Leu Arg Ala Ser Phe Trp Leu Ala Leu Val Gly
1 5 10 15

Cys Val Ile Ser Asp Asn Pro Glu Arg Tyr Ser Thr Asn Leu Ser Asn
20 25 30

His Val Asp Asp Phe Thr Thr Phe Arg Gly Thr Glu Leu Ser Phe Leu
35 40 45

Val Thr Thr His Gln Pro Thr Asn Leu Val Leu Pro Ser Asn Gly Ser
50 55 60

Met His Asn Tyr Cys Pro Gln Gln Thr Lys Ile Thr Ser Ala Phe Lys
65 70 75 80

Tyr Ile Asn Thr Val Ile Ser Cys Thr Ile Phe Ile Val Gly Met Val
85 90 95

Gly Asn Ala Thr Leu Leu Arg Ile Ile Tyr Gln Asn Lys Cys Met Arg
100 105 110

Asn Gly Pro Asn Ala Leu Ile Ala Ser Leu Ala Leu Gly Asp Leu Ile
115 120 125

Tyr Val Val Ile Asp Leu Pro Ile Asn Val Phe Lys Leu Leu Ala Gly
130 135 140

Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val Phe Leu Cys Lys Leu
145 150 155 160

Phe Pro Phe Leu Gln Lys Ser Ser Val Gly Ile Thr Val Leu Asn Leu
165 170 175

Cys Ala Leu Ser Val Asp Arg Tyr Arg Ala Val Ala Ser Trp Ser Arg
180 185 190

Val Gln Gly Ile Gly Ile Pro Leu Val Thr Ala Ile Glu Ile Val Ser
195 200 205

Ile Trp Ile Leu Ser Phe Ile Leu Ala Ile Pro Glu Ala Ile Gly Phe

210

215

220

Val Met Val Pro Phe Glu Tyr Arg Gly Glu Gln His Lys Thr Cys Met
225 230 235 240

Leu Asn Ala Thr Ser Lys Phe Met Glu Phe Tyr Gln Asp Val Lys Asp
245 250 255

Trp Trp Leu Phe Gly Phe Tyr Phe Cys Met Pro Leu Val Cys Thr Ala
260 265 270

Ile Phe Tyr Thr Leu Met Thr Cys Glu Met Leu Asn Arg Arg Asn Gly
275 280 285

Ser Leu Arg Ile Ala Leu Ser Glu His Leu Lys Gln Arg Arg Glu Val
290 295 300

Ala Lys Thr Val Phe Cys Leu Val Val Ile Phe Ala Leu Cys Trp Phe
305 310 315 320

Pro Leu His Leu Ser Arg Ile Leu Lys Lys Thr Val Tyr Asn Glu Met
325 330 335

Asp Lys Asn Arg Cys Glu Leu Leu Ser Phe Leu Leu Leu Met Asp Tyr
340 345 350

Ile Gly Ile Asn Leu Ala Thr Met Asn Ser Cys Ile Asn Pro Ile Ala
355 360 365

Leu Tyr Phe Val Ser Lys Lys Phe Lys Asn Cys Phe Gln Ser Cys Leu
370 375 380

Cys Cys Cys Cys Tyr Gln Ser Lys Ser Leu Met Thr Ser Val Pro Met
385 390 395 400

Asn Gly Thr Ser Ile Gln Trp Lys Asn His Asp Gln Asn Asn His Asn
405 410 415

Thr Asp Arg Ser Ser His Lys Asp Ser Met Asn
420 425

<210> 63

<211> 405

<212> PRT

<213> Homo sapiens

<400> 63

Met Glu Arg Leu Gln Lys Gln Pro Leu Thr Ser Pro Gly Ser Val Ser
1 5 10 15

Pro Ser Arg Asp Ser Ser Val Pro Gly Ser Pro Ser Ser Ile Val Ala
20 25 30

Lys Met Asp Asn Gln Val Leu Gly Tyr Lys Asp Leu Ala Ala Ile Pro
35 40 45

Lys Asp Lys Ala Ile Leu Asp Ile Glu Arg Pro Asp Leu Met Ile Tyr
50 55 60

Glu Pro His Phe Thr Tyr Ser Leu Leu Glu His Val Glu Leu Pro Arg
65 70 75 80

Gln Arg Glu Arg Ser Leu Ser Pro Lys Ser Thr Ser Pro Pro Ser
85 90 95

Pro Glu Val Trp Ala Asp Ser Arg Ser Pro Gly Ile Ile Ser Gln Ala
100 105 110

Ser Ala Pro Arg Thr Thr Gly Thr Pro Arg Thr Ser Leu Pro His Phe
115 120 125

His His Pro Glu Thr Ser Arg Pro Asp Ser Asn Ile Tyr Lys Lys Pro
130 135 140

Pro Ile Tyr Lys Gln Arg Glu Ser Val Gly Gly Ser Pro Gln Thr Lys
145 150 155 160

His Leu Ile Glu Asp Leu Ile Ile Glu Ser Ser Lys Phe Pro Ala Ala
165 170 175

Gln Pro Pro Asp Pro Asn Gln Pro Ala Lys Ile Glu Thr Asp Tyr Trp
180 185 190

Pro Cys Pro Pro Ser Leu Ala Val Val Glu Thr Glu Trp Arg Lys Arg
195 200 205

Lys Ala Ser Arg Arg Gly Ala Glu Glu Glu Glu Glu Glu Asp Asp
210 215 220

Asp Ser Gly Glu Glu Met Lys Ala Leu Arg Glu Arg Gln Arg Glu Glu
225 230 235 240

Leu Ser Lys Val Thr Ser Asn Leu Gly Lys Met Ile Leu Lys Glu Glu
245 250 255

Met Glu Lys Ser Leu Pro Ile Arg Arg Lys Thr Arg Ser Leu Pro Asp
260 265 270

Arg Thr Pro Phe His Thr Ser Leu His Gln Gly Thr Ser Lys Ser Ser
275 280 285

Ser Leu Pro Arg Tyr Gly Arg Thr Thr Leu Ser Arg Leu Gln Ser Thr
290 295 300

Glu Phe Ser Pro Ser Gly Ser Glu Thr Gly Ser Pro Gly Leu Gln Asn
305 310 315 320

Gly Glu Gly Gln Arg Gly Arg Met Asp Arg Gly Asn Ser Leu Pro Cys
325 330 335

Val Leu Glu Gln Lys Ile Tyr Pro Tyr Glu Met Leu Val Val Thr Asn
340 345 350

Lys Gly Arg Thr Lys Leu Pro Pro Gly Val Asp Arg Met Arg Leu Glu
355 360 365

Arg His Leu Ser Ala Glu Asp Phe Ser Arg Val Phe Ala Met Ser Pro
370 375 380

TOP SECRET

Glu Glu Phe Gly Lys Leu Ala Leu Trp Lys Arg Asn Glu Leu Lys Lys
385 390 395 400

Lys Ala Ser Leu Phe
405

<210> 64
<211> 916
<212> PRT
<213> Homo sapiens

<400> 64

Met Glu Ser Gly Gln Pro Ala Arg Arg Ile Ala Met Ala Pro Leu Leu
1 5 10 15

Glu Tyr Glu Arg Gln Leu Val Leu Glu Leu Leu Asp Thr Asp Gly Leu
20 25 30

Val Val Cys Ala Arg Gly Leu Gly Ala Asp Arg Leu Leu Tyr His Phe
35 40 45

Leu Gln Leu His Cys His Pro Ala Cys Leu Val Leu Val Leu Asn Thr
50 55 60

Gln Pro Ala Glu Glu Glu Tyr Phe Ile Asn Gln Leu Lys Ile Glu Gly
65 70 75 80

Val Glu His Leu Pro Arg Arg Val Thr Asn Glu Ile Thr Ser Asn Ser
85 90 95

Arg Tyr Glu Val Tyr Thr Gln Gly Gly Val Ile Phe Ala Thr Ser Arg
100 105 110

Ile Leu Val Val Asp Phe Leu Thr Asp Arg Ile Pro Ser Asp Leu Ile
115 120 125

Thr Gly Ile Leu Val Tyr Arg Ala His Arg Ile Ile Glu Ser Cys Gln
130 135 140

Glu Ala Phe Ile Leu Arg Leu Phe Arg Gln Lys Asn Lys Arg Gly Phe
145 150 155 160

Ile Lys Ala Phe Thr Asp Asn Ala Val Ala Phe Asp Thr Gly Phe Cys
165 170 175

His Val Glu Arg Val Met Arg Asn Leu Phe Val Arg Lys Leu Tyr Leu
180 185 190

Trp Pro Arg Phe His Val Ala Val Asn Ser Phe Leu Glu Gln His Lys
195 200 205

Pro Glu Val Val Glu Ile His Val Ser Met Thr Pro Thr Met Leu Ala
210 215 220

Ile Gln Thr Ala Ile Leu Asp Ile Leu Asn Ala Cys Leu Lys Glu Leu
225 230 235 240

Lys Cys His Asn Pro Ser Leu Glu Val Glu Asp Leu Ser Leu Glu Asn
245 250 255

Ala Ile Gly Lys Pro Phe Asp Lys Thr Ile Arg His Tyr Leu Asp Pro
260 265 270

Leu Trp His Gln Leu Gly Ala Lys Thr Lys Ser Leu Val Gln Asp Leu
275 280 285

Lys Ile Leu Arg Thr Leu Leu Gln Tyr Leu Ser Gln Tyr Asp Cys Val
290 295 300

Thr Phe Leu Asn Leu Leu Glu Ser Leu Arg Ala Thr Glu Lys Ala Phe
305 310 315 320

Gly Gln Asn Ser Gly Trp Leu Phe Leu Asp Ser Ser Thr Ser Met Phe
325 330 335

Ile Asn Ala Arg Ala Arg Val Tyr His Leu Pro Asp Ala Lys Met Ser
340 345 350

Lys Lys Glu Lys Ile Ser Glu Lys Met Glu Ile Lys Glu Gly Glu Glu
355 360 365

Thr Lys Lys Glu Leu Val Leu Glu Ser Asn Pro Lys Trp Glu Ala Leu
370 375 380

Thr Glu Val Leu Lys Glu Ile Glu Ala Glu Asn Lys Glu Ser Glu Ala
385 390 395 400

Leu Gly Gly Pro Gly Gln Val Leu Ile Cys Ala Ser Asp Asp Arg Thr
405 410 415

Cys Ser Gln Leu Arg Asp Tyr Ile Thr Leu Gly Ala Glu Ala Phe Leu
420 425 430

Leu Arg Leu Tyr Arg Lys Thr Phe Glu Lys Asp Ser Lys Ala Glu Glu
435 440 445

Val Trp Met Lys Phe Arg Lys Glu Asp Ser Ser Lys Arg Ile Arg Lys
450 455 460

Ser His Lys Arg Pro Lys Asp Pro Gln Asn Lys Glu Arg Ala Ser Thr
465 470 475 480

Lys Glu Arg Thr Leu Lys Lys Lys Lys Arg Lys Leu Thr Leu Thr Gln
485 490 495

Met Val Gly Lys Pro Glu Glu Leu Glu Glu Glu Gly Asp Val Glu Glu
500 505 510

Gly Tyr Arg Arg Glu Ile Ser Ser Ser Pro Glu Ser Cys Pro Glu Glu
515 520 525

Ile Lys His Glu Glu Phe Asp Val Asn Leu Ser Ser Asp Ala Ala Phe
530 535 540

Gly Ile Leu Lys Glu Pro Leu Thr Ile Ile His Pro Leu Leu Gly Cys
545 550 555 560

Ser Asp Pro Tyr Ala Leu Thr Arg Val Leu His Glu Val Glu Pro Arg
565 570 575

Tyr Val Val Leu Tyr Asp Ala Glu Leu Thr Phe Val Arg Gln Leu Glu
 580 585 590
 Ile Tyr Arg Ala Ser Arg Pro Gly Lys Pro Leu Arg Val Tyr Phe Leu
 595 600 605
 Ile Tyr Gly Gly Ser Thr Glu Glu Gln Arg Tyr Leu Thr Ala Leu Arg
 610 615 620
 Lys Glu Lys Glu Ala Phe Glu Lys Leu Ile Arg Glu Lys Ala Ser Met
 625 630 635 640
 Val Val Pro Glu Glu Arg Glu Gly Arg Asp Glu Thr Asn Leu Asp Leu
 645 650 655
 Val Arg Gly Thr Ala Ser Ala Asp Val Ser Thr Asp Thr Arg Lys Ala
 660 665 670
 Gly Gly Gln Glu Gln Asn Gly Thr Gln Gln Ser Ile Val Val Asp Met
 675 680 685
 Arg Glu Phe Arg Ser Glu Leu Pro Ser Leu Ile His Arg Arg Gly Ile
 690 695 700
 Asp Ile Glu Pro Val Thr Leu Glu Val Gly Asp Tyr Ile Leu Thr Pro
 705 710 715 720
 Glu Met Cys Val Glu Arg Lys Ser Ile Ser Asp Leu Ile Gly Ser Leu
 725 730 735
 Asn Asn Gly Arg Leu Tyr Ser Gln Cys Ile Ser Met Ser Arg Tyr Tyr
 740 745 750
 Lys Arg Pro Val Leu Leu Ile Glu Phe Asp Pro Ser Lys Pro Phe Ser
 755 760 765
 Leu Thr Ser Arg Gly Ala Leu Phe Gln Glu Ile Ser Ser Asn Asp Ile
 770 775 780
 Ser Ser Lys Leu Thr Leu Leu Thr Leu His Phe Pro Arg Leu Arg Ile
 785 790 795 800
 Leu Trp Cys Pro Ser Pro His Ala Thr Ala Glu Leu Phe Glu Glu Leu
 805 810 815
 Lys Gln Ser Lys Pro Gln Pro Asp Ala Ala Thr Ala Leu Ala Ile Thr
 820 825 830
 Ala Asp Ser Glu Thr Leu Pro Glu Ser Glu Lys Tyr Asn Pro Gly Pro
 835 840 845
 Gln Asp Phe Leu Leu Lys Met Pro Gly Val Asn Ala Lys Asn Cys Arg
 850 855 860
 Ser Leu Met His His Val Lys Asn Ile Ala Glu Leu Ala Ala Leu Ser
 865 870 875 880
 Gln Asp Glu Leu Thr Ser Ile Leu Gly Asn Ala Ala Asn Ala Lys Gln
 885 890 895

Asp Gln Phe Leu Leu Asp Gly Gln Leu Leu Pro Asp Asn Phe Ile Ala

245 250 255

Ala Cys Thr Glu Lys Lys Ile Pro Val Val Phe Arg Leu Gln Glu Gly
260 265 270

Tyr Asp His Ser Tyr Tyr Phe Ile Ala Thr Phe Ile Thr Asp His Ile
275 280 285

Arg His His Ala Lys Tyr Leu Asn Ala
290 295

<210> 66
<211> 756
<212> PRT
<213> Homo sapiens

<400> 66

Met Ser Pro Gln Lys Arg Val Lys Asn Val Gln Ala Gln Asn Arg Thr
1 5 10 15

Ser Gln Gly Ser Ser Ser Phe Gln Thr Thr Leu Ser Ala Trp Lys Val
20 25 30

Lys Gln Asp Pro Ser Asn Ser Lys Asn Ile Ser Lys His Gly Gln Asn
35 40 45

Asn Pro Val Gly Asp Tyr Glu His Ala Asp Asp Gln Ala Glu Glu Asp
50 55 60

Ala Leu Gln Met Ala Val Gly Tyr Phe Glu Lys Gly Pro Ile Lys Ala
65 70 75 80

Ser Gln Asn Lys Asp Lys Thr Leu Glu Lys His Leu Lys Thr Val Glu
85 90 95

Asn Val Ala Trp Lys Asn Gly Leu Ala Ser Glu Glu Ile Asp Ile Leu
100 105 110

Leu Asn Ile Ala Leu Ser Gly Lys Phe Gly Asn Ala Val Asn Thr Arg
115 120 125

Ile Leu Lys Cys Met Ile Pro Ala Thr Val Ile Ser Glu Asp Ser Val
130 135 140

Val Lys Ala Val Ser Trp Leu Cys Val Gly Lys Cys Ser Gly Ser Thr
145 150 155 160

Lys Val Leu Phe Tyr Arg Trp Leu Val Ala Met Phe Asp Phe Ile Asp
165 170 175

Arg Lys Glu Gln Ile Asn Leu Leu Tyr Gly Phe Phe Phe Ala Ser Leu
180 185 190

Gln Asp Asp Ala Leu Cys Pro Tyr Val Cys His Leu Leu Tyr Leu Leu
195 200 205

Thr Lys Lys Glu Asn Val Lys Pro Phe Arg Val Arg Lys Leu Leu Asp
210 215 220

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Leu Gln Ala Lys Met Gly Met Gln Pro His Leu Gln Ala Leu Leu Ser
 225 230 235 240
 Leu Tyr Lys Phe Phe Ala Pro Ala Leu Ile Ser Val Ser Leu Pro Val
 245 250 255
 Arg Lys Lys Ile Tyr Leu Gln Asn Ser Glu Asn Leu Trp Lys Thr Ala
 260 265 270
 Leu Leu Ala Val Lys Gln Arg Asn Arg Gly Pro Ser Pro Glu Pro Leu
 275 280 285
 Lys Leu Met Leu Gly Pro Ala Asn Val Arg Pro Leu Lys Arg Lys Trp
 290 295 300
 Asn Ser Leu Ser Val Ile Pro Val Leu Asn Ser Ser Ser Tyr Thr Lys
 305 310 315 320
 Glu Cys Gly Lys Lys Glu Met Ser Leu Ser Asp Cys Leu Asn Arg Ser
 325 330 335
 Gly Ser Phe Pro Leu Glu Gln Leu Gln Ser Phe Pro Gln Leu Leu Gln
 340 345 350
 Asn Ile His Cys Leu Glu Leu Pro Ser Gln Met Gly Ser Val Leu Asn
 355 360 365
 Asn Ser Leu Leu Leu His Tyr Ile Asn Cys Val Arg Asp Glu Pro Val
 370 375 380
 Leu Leu Arg Phe His Tyr Trp Leu Ser Gln Thr Leu Gln Glu Glu Cys
 385 390 395 400
 Ile Trp Tyr Lys Val Asn Asn Tyr Glu His Gly Lys Glu Phe Thr Asn
 405 410 415
 Phe Leu Asp Thr Ile Ile Arg Ala Glu Cys Phe Leu Gln Glu Gly Tyr
 420 425 430
 Tyr Ser Cys Glu Ala Phe Leu Tyr Lys Ser Leu Pro Leu Trp Asp Gly
 435 440 445
 Leu Ser Cys Arg Ser Gln Phe Leu Gln Leu Val Ser Trp Ile Pro Phe
 450 455 460
 Ser Ser Phe Ser Glu Val Lys Pro Leu Leu Phe Asp His Leu Ala Gln
 465 470 475 480
 Leu Phe Phe Thr Ser Thr Ile Tyr Phe Lys Cys Ser Val Leu Gln Ser
 485 490 495
 Leu Lys Glu Leu Leu Gln Asn Trp Leu Leu Trp Leu Ser Met Asp Ile
 500 505 510
 His Met Lys Pro Val Thr Asn Ser Pro Leu Glu Thr Thr Leu Gly Gly
 515 520 525
 Ser Met Asn Cys Val Ser Lys Leu Ile His Tyr Val Gly Trp Leu Ser
 530 535 540

Thr Thr Ala Met Arg Leu Glu Ser Asn Asn Thr Phe Leu Leu His Phe
545 550 555 560

Ile Leu Asp Phe Tyr Glu Lys Val Cys Asp Ile Tyr Ile Asn Tyr Asp
565 570 575

Leu Pro Leu Val Val Leu Phe Pro Pro Gly Ile Phe Tyr Ser Ala Leu
580 585 590

Leu Ser Leu Asp Thr Ser Ile Leu Asn Gln Leu Cys Phe Ile Met His
595 600 605

Arg Tyr Arg Lys Asn Leu Thr Ala Ala Lys Lys Asn Glu Leu Val Gln
610 615 620

Lys Thr Lys Ser Glu Phe Asn Phe Ser Ser Lys Thr Tyr Gln Glu Phe
625 630 635 640

Asn Tyr Tyr Leu Thr Ser Met Val Gly Cys Leu Trp Thr Ser Lys Pro
645 650 655

Phe Ala Lys Gly Ile Tyr Ile Asp Pro Glu Ile Leu Glu Lys Thr Gly
660 665 670

Val Ala Glu Tyr Lys Asn Ser Leu Asn Val Val His His Pro Ser Phe
675 680 685

Leu Ser Tyr Ala Val Ser Phe Leu Leu Gln Glu Ser Pro Glu Glu Arg
690 695 700

Thr Val Asn Val Ser Ser Ile Arg Gly Lys Lys Trp Ser Trp Tyr Leu
705 710 715 720

Asp Tyr Leu Phe Ser Gln Gly Leu Gln Gly Leu Lys Leu Phe Ile Arg
725 730 735

Ser Ser Val His His Ser Ser Ile Pro Arg Ala Glu Gly Ile Asn Cys
740 745 750

Asn Asn Gln Tyr
755

<210> 67
<211> 504
<212> PRT
<213> Homo sapiens

<400> 67

Met Glu Ala Pro Leu Gln Thr Glu Met Val Glu Leu Val Pro Asn Gly
1 5 10 15

Lys His Ser Glu Gly Leu Leu Pro Val Ile Thr Pro Met Ala Gly Asn
20 25 30

Gln Arg Val Glu Asp Pro Ala Arg Ser Cys Met Glu Gly Lys Ser Phe
35 40 45

Leu Gln Lys Ser Pro Ser Lys Glu Pro His Phe Thr Asp Phe Glu Gly
50 55 60

Lys Thr Ser Phe Gly Met Ser Val Phe Asn Leu Ser Asn Ala Ile Met
 65 70 75 80
 Gly Ser Gly Ile Leu Gly Leu Ala Tyr Ala Met Ala Asn Thr Gly Ile
 85 90 95
 Ile Leu Phe Leu Phe Leu Leu Thr Ala Val Ala Leu Leu Ser Ser Tyr
 100 105 110
 Ser Ile His Leu Leu Leu Lys Ser Ser Gly Val Val Gly Ile Arg Ala
 115 120 125
 Tyr Glu Gln Leu Gly Tyr Arg Ala Phe Gly Thr Pro Gly Lys Leu Ala
 130 135 140
 Ala Ala Leu Ala Ile Thr Leu Gln Asn Ile Gly Ala Met Ser Ser Tyr
 145 150 155 160
 Leu Tyr Ile Ile Lys Ser Glu Leu Pro Leu Val Ile Gln Thr Phe Leu
 165 170 175
 Asn Leu Glu Glu Lys Thr Ser Asp Trp Tyr Met Asn Gly Asn Tyr Leu
 180 185 190
 Val Ile Leu Val Ser Val Thr Ile Ile Leu Pro Leu Ala Leu Met Arg
 195 200 205
 Gln Leu Gly Tyr Leu Gly Tyr Ser Ser Gly Phe Ser Leu Ser Cys Met
 210 215 220
 Val Phe Phe Leu Ile Ala Val Ile Tyr Lys Lys Phe His Val Pro Cys
 225 230 235 240
 Pro Leu Pro Pro Asn Phe Asn Asn Thr Thr Gly Asn Phe Ser His Val
 245 250 255
 Glu Ile Val Lys Glu Lys Val Gln Leu Gln Val Glu Pro Glu Ala Ser
 260 265 270
 Ala Phe Cys Thr Pro Ser Tyr Phe Thr Leu Asn Ser Gln Thr Ala Tyr
 275 280 285
 Thr Ile Pro Ile Met Ala Phe Ala Phe Val Cys His Pro Glu Val Leu
 290 295 300
 Pro Ile Tyr Thr Glu Leu Lys Asp Pro Ser Lys Lys Lys Met Gln His
 305 310 315 320
 Ile Ser Asn Leu Ser Ile Ala Val Met Tyr Ile Met Tyr Phe Leu Ala
 325 330 335
 Ala Leu Phe Gly Tyr Leu Thr Phe Tyr Asn Gly Val Glu Ser Glu Leu
 340 345 350
 Leu His Thr Tyr Ser Lys Val Asp Pro Phe Asp Val Leu Ile Leu Cys
 355 360 365
 Val Arg Val Ala Val Leu Thr Ala Val Thr Leu Thr Val Pro Ile Val
 370 375 380

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Leu Phe Pro Val Arg Arg Ala Ile Gln Gln Met Leu Phe Pro Asn Gln
385 390 395 400

Glu Phe Ser Trp Leu Arg His Val Leu Ile Ala Val Gly Leu Leu Thr
405 410 415

Cys Ile Asn Leu Leu Val Ile Phe Ala Pro Asn Ile Leu Gly Ile Phe
420 425 430

Gly Val Ile Gly Ala Thr Ser Ala Pro Phe Leu Ile Phe Ile Phe Pro
435 440 445

Ala Ile Phe Tyr Phe Arg Ile Met Pro Thr Glu Lys Glu Pro Ala Arg
450 455 460

Ser Thr Pro Lys Ile Leu Ala Leu Cys Phe Ala Met Leu Gly Phe Leu
465 470 475 480

Leu Met Thr Met Ser Leu Ser Phe Ile Ile Asp Trp Ala Ser Gly
485 490 495

Thr Ser Arg His Gly Gly Asn His
500

<210> 68

<211> 145

<212> PRT

<213> Homo sapiens

<400> 68

Met Ala Thr Trp Ala Leu Leu Leu Ala Ala Met Leu Leu Gly Asn
1 5 10 15

Pro Gly Leu Val Phe Ser Arg Leu Ser Pro Glu Tyr Tyr Asp Leu Ala
20 25 30

Arg Ala His Leu Arg Asp Glu Glu Lys Ser Cys Pro Cys Leu Ala Gln
35 40 45

Glu Gly Pro Gln Gly Asp Leu Leu Thr Lys Thr Gln Glu Leu Gly Arg
50 55 60

Asp Tyr Arg Thr Cys Leu Thr Ile Val Gln Lys Leu Lys Lys Met Val
65 70 75 80

Asp Lys Pro Thr Gln Arg Ser Val Ser Asn Ala Ala Thr Arg Val Cys
85 90 95

Arg Thr Gly Arg Ser Arg Trp Arg Asp Val Cys Arg Asn Phe Met Arg
100 105 110

Arg Tyr Gln Ser Arg Val Ile Gln Gly Leu Val Ala Gly Glu Thr Ala
115 120 125

Gln Gln Ile Cys Glu Asp Leu Arg Leu Cys Ile Pro Ser Thr Gly Pro
130 135 140

Leu

145

<210> 69
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 69

Met Trp Ser Thr Arg Ser Pro Asn Ser Thr Ala Trp Pro Leu Ser Leu
 1 5 10 15

Glu Pro Asp Pro Gly Met Ala Ser Ala Ser Thr Thr Met His Thr Thr
 20 25 30

Thr Ile Ala Glu Pro Asp Pro Gly Met Ser Gly Trp Pro Asp Gly Arg
 35 40 45

Met Glu Thr Ser Thr Pro Thr Ile Met Asp Ile Val Val Ile Ala Gly
 50 55 60

Val Ile Ala Ala Val Ala Ile Val Leu Val Ser Leu Leu Phe Val Met
 65 70 75 80

Leu Arg Tyr Met Tyr Arg His Lys Gly Thr Tyr His Thr Asn Glu Ala
 85 90 95

Lys Gly Thr Glu Phe Ala Glu Ser Ala Asp Ala Ala Leu Gln Gly Asp
 100 105 110

Pro Ala Leu Gln Asp Ala Gly Asp Ser Ser Arg Lys Glu Tyr Phe Ile
 115 120 125

<210> 70
 <211> 4861
 <212> PRT
 <213> Homo sapiens

<400> 70

Met Ala Thr Met Ile Pro Pro Val Lys Leu Lys Trp Leu Glu His Leu
 1 5 10 15

Asn Ser Ser Trp Ile Thr Glu Asp Ser Glu Ser Ile Ala Thr Arg Glu
 20 25 30

Gly Val Ala Val Leu Tyr Ser Lys Leu Val Ser Asn Lys Glu Val Val
 35 40 45

Pro Leu Pro Gln Gln Val Leu Cys Leu Lys Gly Pro Gln Leu Pro Asp
 50 55 60

Phe Glu Arg Glu Ser Leu Ser Ser Asp Glu Gln Asp His Tyr Leu Asp
 65 70 75 80

Ala Leu Leu Ser Ser Gln Leu Ala Leu Ala Lys Met Val Cys Ser Asp
 85 90 95

Ser Pro Phe Ala Gly Ala Leu Arg Lys Arg Leu Leu Val Leu Gln Arg
 100 105 110

Val Phe Tyr Ala Leu Ser Asn Lys Tyr His Asp Lys Gly Lys Val Lys
115 120 125

Gln Gln Gln His Ser Pro Glu Ser Ser Ser Gly Ser Ala Asp Val His
130 135 140

Ser Val Ser Glu Arg Pro Arg Ser Ser Thr Asp Ala Leu Ile Glu Met
145 150 155 160

Gly Val Arg Thr Gly Leu Ser Leu Leu Phe Ala Leu Leu Arg Gln Ser
165 170 175

Trp Met Met Pro Val Ser Gly Pro Gly Leu Ser Leu Cys Asn Asp Val
180 185 190

Ile His Thr Ala Ile Glu Val Val Ser Ser Leu Pro Pro Leu Ser Leu
195 200 205

Ala Asn Glu Ser Lys Ile Pro Pro Met Gly Leu Asp Cys Leu Ser Gln
210 215 220

Val Thr Thr Phe Leu Lys Gly Val Thr Ile Pro Asn Ser Gly Ala Asp
225 230 235 240

Thr Leu Gly Arg Arg Leu Ala Ser Glu Leu Leu Leu Gly Leu Ala Ala
245 250 255

Gln Arg Gly Ser Leu Arg Tyr Leu Leu Glu Trp Ile Glu Met Ala Leu
260 265 270

Gly Ala Ser Ala Val Val His Thr Met Glu Lys Gly Lys Leu Leu Ser
275 280 285

Ser Gln Glu Gly Met Ile Ser Phe Asp Cys Phe Met Thr Ile Leu Met
290 295 300

Gln Met Arg Arg Ser Leu Gly Ser Ser Ala Asp Arg Ser Gln Trp Arg
305 310 315 320

Glu Pro Thr Arg Thr Ser Asp Gly Leu Cys Ser Leu Tyr Glu Ala Ala
325 330 335

Leu Cys Leu Phe Glu Glu Val Cys Arg Met Ala Ser Asp Tyr Ser Arg
340 345 350

Thr Cys Ala Ser Pro Asp Ser Ile Gln Thr Gly Asp Ala Pro Ile Val
355 360 365

Ser Glu Thr Cys Glu Val Tyr Val Trp Gly Ser Asn Ser Ser His Gln
370 375 380

Leu Val Glu Gly Thr Gln Glu Lys Ile Leu Gln Pro Lys Leu Ala Pro
385 390 395 400

Ser Phe Ser Asp Ala Gln Thr Ile Glu Ala Gly Gln Tyr Cys Thr Phe
405 410 415

Val Ile Ser Thr Asp Gly Ser Val Arg Ala Cys Gly Lys Gly Ser Tyr
420 425 430

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Gly Arg Leu Gly Leu Gly Asp Ser Asn Asn Gln Ser Thr Leu Lys Lys
435 440 445

Leu Thr Phe Glu Pro His Arg Ser Ile Lys Lys Val Ser Ser Ser Lys
450 455 460

Gly Ser Asp Gly His Thr Leu Ala Phe Thr Thr Glu Gly Glu Val Phe
465 470 475 480

Ser Trp Gly Asp Gly Asp Tyr Gly Lys Leu Gly His Gly Asn Ser Ser
485 490 495

Thr Gln Lys Tyr Pro Lys Leu Ile Gln Gly Pro Leu Gln Gly Lys Val
500 505 510

Val Val Cys Val Ser Ala Gly Tyr Arg His Ser Ala Ala Val Thr Glu
515 520 525

Asp Gly Glu Leu Tyr Thr Trp Gly Glu Gly Asp Phe Gly Arg Leu Gly
530 535 540

His Gly Asp Ser Asn Ser Arg Asn Ile Pro Thr Leu Val Lys Asp Ile
545 550 555 560

Ser Asn Val Gly Glu Val Ser Cys Gly Ser Ser His Thr Ile Ala Leu
565 570 575

Ser Lys Asp Gly Arg Thr Val Trp Ser Phe Gly Gly Gly Asp Asn Gly
580 585 590

Lys Leu Gly His Gly Asp Thr Asn Arg Val Tyr Lys Pro Lys Val Ile
595 600 605

Glu Ala Leu Gln Gly Met Phe Ile Arg Lys Val Cys Ala Gly Ser Gln
610 615 620

Ser Ser Leu Ala Leu Thr Ser Thr Gly Gln Val Tyr Ala Trp Gly Cys
625 630 635 640

Gly Ala Cys Leu Gly Cys Gly Ser Ser Glu Ala Thr Ala Leu Arg Pro
645 650 655

Lys Leu Ile Glu Glu Leu Ala Ala Thr Arg Ile Val Asp Val Ser Ile
660 665 670

Gly Asp Ser His Cys Leu Ala Leu Ser His Asp Asn Glu Val Tyr Ala
675 680 685

Trp Gly Asn Asn Ser Met Gly Gln Cys Gly Gln Gly Asn Ser Thr Gly
690 695 700

Pro Ile Thr Lys Pro Lys Lys Val Ser Gly Leu Asp Gly Ile Ala Ile
705 710 715 720

Gln Gln Ile Ser Ala Gly Thr Ser His Ser Leu Ala Trp Thr Ala Leu
725 730 735

Pro Arg Asp Arg Gln Val Val Ala Trp His Arg Pro Tyr Cys Val Asp
740 745 750

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Leu Glu Glu Ser Thr Phe Ser His Leu Arg Ser Phe Leu Glu Arg Tyr
 755 760 765
 Cys Asp Lys Ile Asn Ser Glu Ile Pro Pro Leu Pro Phe Pro Ser Ser
 770 775 780
 Arg Glu His His Ser Phe Leu Lys Leu Cys Leu Lys Leu Leu Ser Asn
 785 790 795 800
 His Leu Ala Leu Ala Leu Ala Gly Gly Val Ala Thr Ser Ile Leu Gly
 805 810 815
 Arg Gln Ala Gly Pro Leu Arg Asn Leu Leu Phe Arg Leu Met Asp Ser
 820 825 830
 Thr Val Pro Asp Glu Ile Gln Glu Val Val Ile Glu Thr Leu Ser Val
 835 840 845
 Gly Ala Thr Met Leu Leu Pro Pro Leu Arg Glu Arg Met Glu Leu Leu
 850 855 860
 His Ser Leu Leu Pro Gln Gly Pro Asp Arg Trp Glu Ser Leu Ser Lys
 865 870 875 880
 Gly Gln Arg Met Gln Leu Asp Ile Ile Leu Thr Ser Leu Gln Asp His
 885 890 895
 Thr His Val Ala Ser Leu Leu Gly Tyr Ser Ser Pro Ser Asp Ala Ala
 900 905 910
 Asp Leu Ser Ser Val Cys Thr Gly Tyr Gly Asn Leu Ser Asp Gln Pro
 915 920 925
 Tyr Gly Thr Gln Ser Cys His Pro Asp Thr His Leu Ala Glu Ile Leu
 930 935 940
 Met Lys Thr Leu Leu Arg Asn Leu Gly Phe Tyr Thr Asp Gln Ala Phe
 945 950 955 960
 Gly Glu Leu Glu Lys Asn Ser Asp Lys Phe Leu Leu Gly Thr Ser Ser
 965 970 975
 Ser Glu Asn Ser Ser Gln Pro Ala His Leu His Glu Leu Lys Cys Ser Leu
 980 985 990
 Gln Lys Gln Leu Leu Ala Phe Cys His Ile Asn Asn Ile Ser Glu Asn
 995 1000 1005
 Ser Ser Ser Val Ala Leu Leu His Lys His Leu Gln Leu Leu Leu
 1010 1015 1020
 Pro His Ala Thr Asp Ile Tyr Ser Arg Ser Ala Asn Leu Leu Lys
 1025 1030 1035
 Glu Ser Pro Trp Asn Gly Ser Val Gly Glu Lys Leu Arg Asp Val
 1040 1045 1050
 Ile Tyr Val Ser Ala Ala Gly Ser Met Leu Cys Gln Ile Val Asn
 1055 1060 1065

Glu Asp Glu Glu Glu Glu Arg Glu His Glu Val Met Thr Ala Gly
 1370 1375 1380
 Lys Ile Phe Gln Cys Phe Leu Ser Ala Arg Glu Val Ala Arg Ser
 1385 1390 1395
 Arg Asp Arg Asp Arg Met Asn Ser Gly Ala Gly Ser Gly Ala Arg
 1400 1405 1410
 Ala Asp Asp Pro Pro Pro Gln Ser Gln Gln Glu Arg Arg Val Ser
 1415 1420 1425
 Thr Asp Leu Pro Glu Gly Gln Asp Val Tyr Thr Ala Ala Cys Asn
 1430 1435 1440
 Ser Val Ile His Arg Cys Ala Leu Leu Ile Leu Gly Val Ser Pro
 1445 1450 1455
 Val Ile Asp Glu Leu Gln Lys Arg Arg Glu Glu Gly Gln Leu Gln
 1460 1465 1470
 Gln Pro Ser Thr Ser Ala Ser Glu Gly Gly Gly Leu Met Thr Arg
 1475 1480 1485
 Ser Glu Ser Leu Thr Ala Glu Ser Arg Leu Val His Thr Ser Pro
 1490 1495 1500
 Asn Tyr Arg Leu Ile Lys Ser Arg Ser Glu Ser Asp Leu Ser Gln
 1505 1510 1515
 Pro Glu Ser Asp Glu Glu Gly Tyr Ala Leu Ser Gly Arg Gln Asn
 1520 1525 1530
 Val Asp Leu Asp Leu Ala Ala Ser His Arg Lys Arg Gly Pro Met
 1535 1540 1545
 His Ser Gln Leu Glu Ser Leu Ser Asp Ser Trp Ala Arg Leu Lys
 1550 1555 1560
 His Ser Arg Asp Trp Leu Cys Asn Ser Ser Tyr Ser Phe Glu Ser
 1565 1570 1575
 Asp Phe Asp Leu Thr Lys Ser Leu Gly Val His Thr Leu Ile Glu
 1580 1585 1590
 Asn Val Val Ser Phe Val Ser Gly Asp Val Gly Asn Ala Pro Gly
 1595 1600 1605
 Phe Lys Glu Pro Glu Glu Ser Met Ser Thr Ser Pro Gln Ala Ser
 1610 1615 1620
 Ile Ile Ala Met Glu Gln Gln Gln Leu Arg Ala Glu Leu Arg Leu
 1625 1630 1635
 Glu Ala Leu His Gln Ile Leu Val Leu Leu Ser Gly Met Glu Glu
 1640 1645 1650
 Lys Gly Ser Ile Ser Leu Ala Gly Ser Arg Leu Ser Ser Gly Phe
 1655 1660 1665

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Gln	Ser	Ser	Thr	Leu	Leu	Thr	Ser	Val	Arg	Leu	Gln	Phe	Leu	Ala
1670						1675					1680			
Gly	Cys	Phe	Gly	Leu	Gly	Thr	Val	Gly	His	Thr	Gly	Ala	Lys	Gly
1685						1690					1695			
Glu	Ser	Gly	Arg	Leu	His	His	Tyr	Gln	Asp	Gly	Ile	Arg	Ala	Ala
1700						1705					1710			
Lys	Arg	Asn	Ile	Gln	Ile	Glu	Ile	Gln	Val	Ala	Val	His	Lys	Ile
1715						1720					1725			
Tyr	Gln	Gln	Leu	Ser	Ala	Thr	Leu	Glu	Arg	Ala	Leu	Gln	Ala	Asn
1730						1735					1740			
Lys	His	His	Ile	Glu	Ala	Gln	Gln	Arg	Leu	Leu	Leu	Val	Thr	Val
1745						1750					1755			
Phe	Ala	Leu	Ser	Val	His	Tyr	Gln	Pro	Val	Asp	Val	Ser	Leu	Ala
1760						1765					1770			
Ile	Ser	Thr	Gly	Leu	Leu	Asn	Val	Leu	Ser	Gln	Leu	Cys	Gly	Thr
1775						1780					1785			
Asp	Thr	Met	Leu	Gly	Gln	Pro	Leu	Gln	Leu	Leu	Pro	Lys	Thr	Gly
1790						1795					1800			
Val	Ser	Gln	Leu	Ser	Thr	Ala	Leu	Lys	Val	Ala	Ser	Thr	Arg	Leu
1805						1810					1815			
Leu	Gln	Ile	Leu	Ala	Ile	Thr	Thr	Gly	Thr	Tyr	Ala	Asp	Lys	Leu
1820						1825					1830			
Ser	Pro	Lys	Val	Val	Gln	Ser	Leu	Leu	Asp	Leu	Leu	Cys	Ser	Gln
1835						1840					1845			
Leu	Lys	Asn	Leu	Leu	Ser	Gln	Thr	Gly	Val	Leu	His	Met	Ala	Ser
1850						1855					1860			
Phe	Gly	Glu	Gly	Glu	Gln	Glu	Asp	Gly	Glu	Glu	Glu	Glu	Lys	Lys
1865						1870					1875			
Val	Asp	Ser	Ser	Gly	Glu	Thr	Glu	Lys	Lys	Asp	Phe	Arg	Ala	Ala
1880						1885					1890			
Leu	Arg	Lys	Gln	His	Ala	Ala	Glu	Leu	His	Leu	Gly	Asp	Phe	Leu
1895						1900					1905			
Val	Phe	Leu	Arg	Arg	Val	Val	Ser	Ser	Lys	Ala	Ile	Gln	Ser	Lys
1910						1915					1920			
Met	Ala	Ser	Pro	Lys	Trp	Thr	Glu	Val	Leu	Leu	Asn	Ile	Ala	Ser
1925						1930					1935			
Gln	Lys	Cys	Ser	Ser	Gly	Ile	Pro	Leu	Val	Gly	Asn	Leu	Arg	Thr
1940						1945					1950			
Arg	Leu	Leu	Ala	Leu	His	Val	Leu	Glu	Ala	Val	Leu	Pro	Ala	Cys
1955						1960					1965			

Glu Ser	Gly Val	Glu Asp	Asp	Gln Met	Ala Gln	Ile	Val Glu	Arg
1970			1975			1980		
Leu Phe	Ser Leu	Leu Ser	Asp	Cys Met	Trp Glu	Thr	Pro Ile	Ala
1985			1990			1995		
Gln Ala	Lys His	Ala Ile	Gln	Ile Lys	Glu Lys	Glu	Gln Glu	Ile
2000			2005			2010		
Lys Leu	Gln Lys	Gln Gly	Glu	Leu Glu	Glu Glu	Asp	Glu Asn	Leu
2015			2020			2025		
Pro Ile	Gln Glu	Val Ser	Phe	Asp Pro	Glu Lys	Ala	Gln Cys	Cys
2030			2035			2040		
Leu Val	Glu Asn	Gly Gln	Ile	Leu Thr	His Gly	Ser	Gly Gly	Lys
2045			2050			2055		
Gly Tyr	Gly Leu	Ala Ser	Thr	Gly Val	Thr Ser	Gly	Cys Tyr	Gln
2060			2065			2070		
Trp Lys	Phe Tyr	Ile Val	Lys	Glu Asn	Arg Gly	Asn	Glu Gly	Thr
2075			2080			2085		
Cys Val	Gly Val	Ser Arg	Trp	Pro Val	His Asp	Phe	Asn His	Arg
2090			2095			2100		
Thr Thr	Ser Asp	Met Trp	Leu	Tyr Arg	Ala Tyr	Ser	Gly Asn	Leu
2105			2110			2115		
Tyr His	Asn Gly	Glu Gln	Thr	Leu Thr	Leu Ser	Ser	Phe Thr	Gln
2120			2125			2130		
Gly Asp	Phe Ile	Thr Cys	Val	Leu Asp	Met Glu	Ala	Arg Thr	Ile
2135			2140			2145		
Ser Phe	Gly Lys	Asn Gly	Glu	Glu Pro	Lys Leu	Ala	Phe Glu	Asp
2150			2155			2160		
Val Asp	Ala Ala	Glu Leu	Tyr	Pro Cys	Val Met	Phe	Tyr Ser	Ser
2165			2170			2175		
Asn Pro	Gly Glu	Lys Val	Lys	Ile Cys	Asp Met	Gln	Met Arg	Gly
2180			2185			2190		
Thr Pro	Arg Asp	Leu Leu	Pro	Gly Asp	Pro Ile	Cys	Ser Pro	Val
2195			2200			2205		
Ala Ala	Val Leu	Ala Glu	Ala	Thr Ile	Gln Leu	Val	Arg Ile	Leu
2210			2215			2220		
His Arg	Thr Asp	Arg Trp	Thr	Tyr Cys	Ile Asn	Lys	Lys Met	Met
2225			2230			2235		
Glu Arg	Leu His	Lys Ile	Lys	Ile Cys	Ile Lys	Glu	Ser Gly	Gln
2240			2245			2250		
Lys Leu	Lys Lys	Ser Arg	Ser	Val Gln	Ser Arg	Glu	Glu Asn	Glu
2255			2260			2265		

Met Arg Glu Glu Lys Glu Ser Lys Glu Glu Glu Lys Gly Lys His
2270 2275 2280

Thr Arg His Gly Leu Ala Asp Leu Ser Glu Leu Gln Leu Arg Thr
2285 2290 2295

Leu Cys Ile Glu Val Trp Pro Val Leu Ala Val Ile Gly Gly Val
2300 2305 2310

Asp Ala Gly Leu Arg Val Gly Gly Arg Cys Val His Lys Gln Thr
2315 2320 2325

Gly Arg His Ala Thr Leu Leu Gly Val Val Lys Glu Gly Ser Thr
2330 2335 2340

Ser Ala Lys Val Gln Trp Asp Glu Ala Glu Ile Thr Ile Ser Phe
2345 2350 2355

Pro Thr Phe Trp Ser Pro Ser Asp Thr Pro Leu Tyr Asn Leu Glu
2360 2365 2370

Pro Cys Glu Pro Leu Pro Phe Asp Val Ala Arg Phe Arg Gly Leu
2375 2380 2385

Thr Ala Ser Val Leu Leu Asp Leu Thr Tyr Leu Thr Gly Val His
2390 2395 2400

Glu Asp Met Gly Lys Gln Ser Thr Lys Arg His Glu Lys Lys His
2405 2410 2415

Arg His Glu Ser Glu Glu Lys Gly Asp Val Glu Gln Lys Pro Glu
2420 2425 2430

Ser Glu Ser Ala Leu Asp Met Arg Thr Gly Leu Thr Ser Asp Asp
2435 2440 2445

Val Lys Ser Gln Ser Thr Thr Ser Ser Lys Ser Glu Asn Glu Ile
2450 2455 2460

Ala Ser Phe Ser Leu Asp Pro Thr Leu Pro Ser Val Glu Ser Gln
2465 2470 2475

His Gln Ile Thr Glu Gly Lys Arg Lys Asn His Glu His Met Ser
2480 2485 2490

Lys Asn His Asp Val Ala Gln Ser Glu Ile Arg Ala Val Gln Leu
2495 2500 2505

Ser Tyr Leu Tyr Leu Gly Ala Met Lys Ser Leu Ser Ala Leu Leu
2510 2515 2520

Gly Cys Ser Lys Tyr Ala Glu Leu Leu Leu Ile Pro Lys Val Leu
2525 2530 2535

Ala Glu Asn Gly His Asn Ser Asp Cys Ala Ser Ser Pro Val Val
2540 2545 2550

His Glu Asp Val Glu Met Arg Ala Ala Leu Gln Phe Leu Met Arg
2555 2560 2565

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101520 15461660

His Met	Val Lys Arg	Ala Val	Met Arg Ser Pro	Ile	Lys Arg Ala
2570		2575		2580	
Leu Gly	Leu Ala Asp	Leu Glu	Arg Ala Gln Ala	Met	Ile Tyr Lys
2585		2590		2595	
Leu Val	Val His Gly	Leu Leu	Glu Asp Gln Phe	Gly	Gly Lys Ile
2600		2605		2610	
Lys Gln	Glu Ile Asp	Gln Gln	Ala Glu Glu Ser	Asp	Pro Ala Gln
2615		2620		2625	
Gln Ala	Gln Thr Pro	Val Thr	Thr Ser Pro Ser	Ala	Ser Ser Thr
2630		2635		2640	
Thr Ser	Phe Met Ser	Ser Ser	Leu Glu Asp Thr	Thr	Thr Ala Thr
2645		2650		2655	
Thr Pro	Val Thr Asp	Thr Glu	Thr Val Pro Ala	Ser	Glu Ser Pro
2660		2665		2670	
Gly Val	Met Pro Leu	Ser Leu	Leu Arg Gln Met	Phe	Ser Ser Tyr
2675		2680		2685	
Pro Thr	Thr Thr Val	Leu Pro	Thr Arg Arg Ala	Gln	Thr Pro Pro
2690		2695		2700	
Ile Ser	Ser Leu Pro	Thr Ser	Pro Ser Asp Glu	Val	Gly Arg Arg
2705		2710		2715	
Gln Ser	Leu Thr Ser	Pro Asp	Ser Gln Ser Ala	Arg	Pro Ala Asn
2720		2725		2730	
Arg Thr	Ala Leu Ser	Asp Pro	Ser Ser Arg Leu	Ser	Thr Ser Pro
2735		2740		2745	
Pro Pro	Pro Ala Ile	Ala Val	Pro Leu Leu Glu	Met	Gly Phe Ser
2750		2755		2760	
Leu Arg	Gln Ile Ala	Lys Ala	Met Glu Ala Thr	Gly	Ala Arg Gly
2765		2770		2775	
Glu Ala	Asp Ala Gln	Asn Ile	Thr Val Leu Ala	Met	Trp Met Ile
2780		2785		2790	
Glu His	Pro Gly His	Glu Asp	Glu Glu Glu Pro	Gln	Ser Gly Ser
2795		2800		2805	
Thr Ala	Asp Ser Arg	Pro Gly	Ala Ala Val Leu	Gly	Ser Gly Gly
2810		2815		2820	
Lys Ser	Asn Asp Pro	Cys Tyr	Leu Gln Ser Pro	Gly	Asp Ile Pro
2825		2830		2835	
Ser Ala	Asp Ala Ala	Glu Met	Glu Glu Gly Phe	Ser	Glu Ser Pro
2840		2845		2850	
Asp Asn	Leu Asp His	Thr Glu	Asn Ala Ala Ser	Gly	Ser Gly Pro
2855		2860		2865	

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Ser	Ala	Arg	Gly	Arg	Ser	Ala	Val	Thr	Arg	Arg	His	Lys	Phe	Asp
2870						2875					2880			
Leu	Ala	Ala	Arg	Thr	Leu	Leu	Ala	Arg	Ala	Ala	Gly	Leu	Tyr	Arg
2885						2890					2895			
Ser	Val	Gln	Ala	His	Arg	Asn	Gln	Ser	Arg	Arg	Glu	Gly	Ile	Ser
2900						2905					2910			
Leu	Gln	Gln	Asp	Pro	Gly	Ala	Leu	Tyr	Asp	Phe	Asn	Leu	Asp	Glu
2915						2920					2925			
Glu	Leu	Glu	Ile	Asp	Leu	Asp	Asp	Glu	Ala	Met	Glu	Ala	Met	Phe
2930						2935					2940			
Gly	Gln	Asp	Leu	Thr	Ser	Asp	Asn	Asp	Ile	Leu	Gly	Met	Trp	Ile
2945						2950					2955			
Pro	Glu	Val	Leu	Asp	Trp	Pro	Thr	Trp	His	Val	Cys	Glu	Ser	Glu
2960						2965					2970			
Asp	Arg	Glu	Glu	Val	Val	Val	Cys	Glu	Leu	Cys	Glu	Cys	Ser	Val
2975						2980					2985			
Val	Ser	Phe	Asn	Gln	His	Met	Lys	Arg	Asn	His	Pro	Gly	Cys	Gly
2990						2995					3000			
Arg	Ser	Ala	Asn	Arg	Gln	Gly	Tyr	Arg	Ser	Asn	Gly	Ser	Tyr	Val
3005						3010					3015			
Asp	Gly	Trp	Phe	Gly	Gly	Glu	Cys	Gly	Ser	Gly	Asn	Pro	Tyr	Tyr
3020						3025					3030			
Leu	Leu	Cys	Gly	Thr	Cys	Arg	Glu	Lys	Tyr	Leu	Ala	Met	Lys	Thr
3035						3040					3045			
Lys	Ser	Lys	Ser	Thr	Ser	Ser	Glu	Arg	Tyr	Lys	Gly	Gln	Ala	Pro
3050						3055					3060			
Asp	Leu	Ile	Gly	Lys	Gln	Asp	Ser	Val	Tyr	Glu	Glu	Asp	Trp	Asp
3065						3070					3075			
Met	Leu	Asp	Val	Asp	Glu	Asp	Glu	Lys	Leu	Thr	Gly	Glu	Glu	Glu
3080						3085					3090			
Phe	Glu	Leu	Leu	Ala	Gly	Pro	Leu	Gly	Leu	Asn	Asp	Arg	Arg	Ile
3095						3100					3105			
Val	Pro	Glu	Pro	Val	Gln	Phe	Pro	Asp	Ser	Asp	Pro	Leu	Gly	Ala
3110						3115					3120			
Ser	Val	Ala	Met	Val	Thr	Ala	Thr	Asn	Ser	Met	Glu	Glu	Thr	Leu
3125						3130					3135			
Met	Gln	Ile	Gly	Cys	His	Gly	Ser	Val	Glu	Lys	Ser	Ser	Ser	Gly
3140						3145					3150			
Arg	Ile	Thr	Leu	Gly	Glu	Gln	Ala	Ala	Ala	Leu	Ala	Asn	Pro	His
3155						3160					3165			

Asp Arg	Val Val	Ala Leu	Arg Arg	Val Thr	Ala Ala	Ala Gln	Val
3170			3175			3180	
Leu Leu	Ala Arg	Thr Met	Val Met	Arg Ala	Leu Ser	Leu Leu	Ser
3185			3190			3195	
Val Ser	Gly Ser	Ser Cys	Ser Leu	Ala Ala	Gly Leu	Glu Ser	Leu
3200			3205			3210	
Gly Leu	Thr Asp	Ile Arg	Thr Leu	Val Arg	Leu Met	Cys Leu	Ala
3215			3220			3225	
Ala Ala	Gly Arg	Ala Gly	Leu Ser	Thr Ser	Pro Ser	Ala Met	Ala
3230			3235			3240	
Ser Thr	Ser Glu	Arg Ser	Arg Gly	Gly His	Ser Lys	Ala Asn	Lys
3245			3250			3255	
Pro Ile	Ser Cys	Leu Ala	Tyr Leu	Ser Thr	Ala Val	Gly Cys	Leu
3260			3265			3270	
Ala Ser	Asn Ala	Pro Ser	Ala Ala	Lys Leu	Leu Val	Gln Leu	Cys
3275			3280			3285	
Thr Gln	Asn Leu	Ile Ser	Ala Ala	Thr Gly	Val Asn	Leu Thr	Thr
3290			3295			3300	
Val Asp	Asp Ser	Ile Gln	Arg Lys	Phe Leu	Pro Ser	Phe Leu	Arg
3305			3310			3315	
Gly Ile	Ala Glu	Glu Asn	Lys Leu	Val Thr	Ser Pro	Asn Phe	Val
3320			3325			3330	
Val Thr	Gln Ala	Leu Val	Ala Leu	Leu Ala	Asp Lys	Gly Ala	Lys
3335			3340			3345	
Leu Arg	Pro Asn	Tyr Asp	Lys Ser	Glu Val	Glu Lys	Lys Gly	Pro
3350			3355			3360	
Leu Glu	Leu Ala	Asn Ala	Leu Ala	Ala Cys	Cys Leu	Ser Ser	Arg
3365			3370			3375	
Leu Ser	Ser Gln	His Arg	Gln Trp	Ala Ala	Gln Gln	Leu Val	Arg
3380			3385			3390	
Thr Leu	Ala Ala	His Asp	Arg Asp	Asn Gln	Thr Thr	Leu Gln	Thr
3395			3400			3405	
Leu Ala	Asp Met	Gly Gly	Asp Leu	Arg Lys	Cys Ser	Phe Ile	Lys
3410			3415			3420	
Leu Glu	Ala His	Gln Asn	Arg Val	Met Thr	Cys Val	Trp Cys	Asn
3425			3430			3435	
Lys Lys	Gly Leu	Leu Ala	Thr Ser	Gly Asn	Asp Gly	Thr Ile	Arg
3440			3445			3450	
Val Trp	Asn Val	Thr Lys	Lys Gln	Tyr Ser	Leu Gln	Gln Thr	Cys
3455			3460			3465	

Val Phe	Asn Arg	Leu Glu	Gly Asp	Ala Glu	Glu Ser	Leu Gly	Ser
3470			3475			3480	
Pro Ser	Asp Pro	Ser Phe	Ser	Pro Val	Ser Trp	Ser	Ile Ser Gly
3485			3490			3495	
Lys Tyr	Leu Ala	Gly Ala	Leu	Glu Lys	Met Val	Asn	Ile Trp Gln
3500			3505			3510	
Val Asn	Gly Gly	Lys Gly	Leu	Val Asp	Ile Gln	Pro	His Trp Val
3515			3520			3525	
Ser Ala	Leu Ala	Trp Pro	Glu	Glu Gly	Pro Ala	Thr	Ala Trp Ser
3530			3535			3540	
Gly Glu	Ser Pro	Glu Leu	Leu	Leu Val	Gly Arg	Met	Asp Gly Ser
3545			3550			3555	
Leu Gly	Leu Ile	Glu Val	Val	Asp Val	Ser Thr	Met	His Arg Arg
3560			3565			3570	
Glu Leu	Glu His	Cys Tyr	Arg	Lys Asp	Val Ser	Val	Thr Cys Ile
3575			3580			3585	
Ala Trp	Phe Ser	Glu Asp	Arg	Pro Phe	Ala Val	Gly	Tyr Phe Asp
3590			3595			3600	
Gly Lys	Leu Leu	Leu Gly	Thr	Lys Glu	Pro Leu	Glu	Lys Gly Gly
3605			3610			3615	
Ile Val	Leu Ile	Asp Ala	His	Lys Asp	Thr Leu	Ile	Ser Met Lys
3620			3625			3630	
Trp Asp	Pro Thr	Gly His	Ile	Leu Met	Thr Cys	Ala	Lys Glu Asp
3635			3640			3645	
Ser Val	Lys Leu	Trp Gly	Ser	Ile Ser	Gly Cys	Trp	Cys Cys Leu
3650			3655			3660	
His Ser	Leu Cys	His Pro	Ser	Ile Val	Asn Gly	Ile	Ala Trp Cys
3665			3670			3675	
Arg Leu	Pro Gly	Lys Gly	Ser	Lys Leu	Gln Leu	Leu	Met Ala Thr
3680			3685			3690	
Gly Cys	Gln Ser	Gly Leu	Val	Cys Val	Trp Arg	Ile	Pro Gln Asp
3695			3700			3705	
Thr Thr	Gln Thr	Asn Val	Thr	Ser Ala	Glu Gly	Trp	Trp Asp Gln
3710			3715			3720	
Glu Ser	Asn Cys	Gln Asp	Gly	Tyr Arg	Lys Ser	Ser	Gly Ala Lys
3725			3730			3735	
Cys Val	Tyr Gln	Leu Arg	Gly	His Ile	Thr Pro	Val	Arg Thr Val
3740			3745			3750	
Ala Phe	Ser Ser	Asp Gly	Leu	Ala Leu	Val Ser	Gly	Gly Leu Gly
3755			3760			3765	

Gly Leu Met Asn Ile Trp Ser 3770	Leu Arg Asp Gly Ser 3780	Val Leu Gln
Thr Val Val Ile Gly Ser 3785	Gly Ala Ile Gln Thr Thr 3795	Val Trp Ile
Pro Glu Val Gly Val Ala Ala 3800	Cys Ser Asn Arg Ser 3810	Lys Asp Val
Leu Val Val Asn Cys Thr Ala 3815	Glu Trp Ala Ala Ala 3825	Asn His Val
Leu Ala Thr Cys Arg Thr Ala 3830	Leu Lys Gln Gln Gly 3840	Val Leu Gly
Leu Asn Met Ala Pro Cys Met 3845	Arg Ala Phe Leu Glu 3855	Arg Leu Pro
Met Met Leu Gln Glu Gln Tyr 3860	Ala Tyr Glu Lys Pro 3870	His Val Val
Cys Gly Asp Gln Leu Val His 3875	Ser Pro Tyr Met Gln 3885	Cys Leu Ala
Ser Leu Ala Val Gly Leu His 3890	Leu Asp Gln Leu Leu 3900	Cys Asn Pro
Pro Val Pro Pro His His 3905	Gln Asn Cys Leu Pro Asp 3915	Pro Ala Ser
Trp Asn Pro Asn Glu Trp Ala 3920	Trp Leu Glu Cys Phe 3930	Ser Thr Thr
Ile Lys Ala Ala Glu Ala Leu 3935	Thr Asn Gly Ala Gln 3945	Phe Pro Glu
Ser Phe Thr Val Pro Asp Leu 3950	Glu Glu Pro Val Pro Glu 3960	Asp Glu Leu
Val Phe Leu Met Asp Asn Ser 3965	Lys Trp Ile Asn Gly 3975	Met Asp Glu
Gln Ile Met Ser Trp Ala Thr 3980	Ser Arg Pro Glu Asp 3990	Trp His Leu
Gly Gly Lys Cys Asp Val Tyr 3995	Leu Trp Gly Ala Gly 4005	Arg His Gly
Gln Leu Ala Glu Ala Gly Arg 4010	Asn Val Met Val Pro 4020	Ala Ala Ala
Pro Ser Phe Ser Gln Ala Gln 4025	Gln Val Ile Cys Gly 4035	Gln Asn Cys
Thr Phe Val Ile Gln Ala Asn 4040	Gly Thr Val Leu Ala 4050	Cys Gly Glu
Gly Ser Tyr Gly Arg Leu Gly 4055	Gln Gly Asn Ser Asp 4065	Asp Leu His

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Val Leu	Thr Val	Ile Ser	Ala	Leu Gln	Gly Phe	Val	Val Thr	Gln
4070			4075			4080		
Leu Val	Thr Ser	Cys Gly	Ser	Asp Gly	His Ser	Met	Ala Leu	Thr
4085			4090			4095		
Glu Ser	Gly Glu	Val Phe	Ser	Trp Gly	Asp Gly	Asp	Tyr Gly	Lys
4100			4105			4110		
Leu Gly	His Gly	Asn Ser	Asp	Arg Gln	Arg Arg	Pro	Arg Gln	Ile
4115			4120			4125		
Glu Ala	Leu Gln	Gly Glu	Glu	Val Val	Gln Met	Ser	Cys Gly	Phe
4130			4135			4140		
Lys His	Ser Ala	Val Val	Thr	Ser Asp	Gly Lys	Leu	Phe Thr	Phe
4145			4150			4155		
Gly Asn	Gly Asp	Tyr Gly	Arg	Leu Gly	Leu Gly	Asn	Thr Ser	Asn
4160			4165			4170		
Lys Lys	Leu Pro	Glu Arg	Val	Thr Ala	Leu Glu	Gly	Tyr Gln	Ile
4175			4180			4185		
Gly Gln	Val Ala	Cys Gly	Leu	Asn His	Thr Leu	Ala	Val Ser	Ala
4190			4195			4200		
Asp Gly	Ser Met	Val Trp	Ala	Phe Gly	Asp Gly	Asp	Tyr Gly	Lys
4205			4210			4215		
Leu Gly	Leu Gly	Asn Ser	Thr	Ala Lys	Ser Ser	Pro	Gln Lys	Ile
4220			4225			4230		
Asp Val	Leu Cys	Gly Ile	Gly	Ile Lys	Lys Val	Ala	Cys Gly	Thr
4235			4240			4245		
Gln Phe	Ser Val	Ala Leu	Thr	Lys Asp	Gly His	Val	Tyr Thr	Phe
4250			4255			4260		
Gly Gln	Asp Arg	Leu Ile	Gly	Leu Pro	Glu Gly	Arg	Ala Arg	Asn
4265			4270			4275		
His Asn	Arg Pro	Gln Gln	Ile	Pro Val	Leu Ala	Gly	Val Ile	Ile
4280			4285			4290		
Glu Asp	Val Ala	Val Gly	Ala	Glu His	Thr Leu	Ala	Leu Ala	Ser
4295			4300			4305		
Asn Gly	Asp Val	Tyr Ala	Trp	Gly Ser	Asn Ser	Glu	Gly Gln	Leu
4310			4315			4320		
Gly Leu	Gly His	Thr Asn	His	Val Arg	Glu Pro	Thr	Leu Val	Thr
4325			4330			4335		
Gly Leu	Gln Gly	Lys Asn	Val	Arg Gln	Ile Ser	Ala	Gly Arg	Cys
4340			4345			4350		
His Ser	Ala Ala	Trp Thr	Ala	Pro Pro	Val Pro	Pro	Arg Ala	Pro
4355			4360			4365		

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Gly Val 4370	Ser Val	Pro Leu	Gln 4375	Leu Gly	Leu Pro	Asp 4380	Thr Val	Pro	
Pro Gln 4385	Tyr Gly	Ala Leu	Arg 4390	Glu Val	Ser Ile	His 4395	Thr Val	Arg	
Ala Arg 4400	Leu Arg	Leu Leu	Tyr 4405	His Phe	Ser Asp	Leu 4410	Met Tyr	Ser	
Ser Trp 4415	Arg Leu	Leu Asn	Leu 4420	Ser Pro	Asn Asn	Gln 4425	Asn Ser	Thr	
Ser His 4430	Tyr Asn	Ala Gly	Thr 4435	Trp Gly	Ile Val	Gln 4440	Gly Gln	Leu	
Arg Pro 4445	Leu Leu	Ala Pro	Arg 4450	Val Tyr	Thr Leu	Pro 4455	Met Val	Arg	
Ser Ile 4460	Gly Lys	Thr Met	Val 4465	Gln Gly	Lys Asn	Tyr 4470	Gly Pro	Gln	
Ile Thr 4475	Val Lys	Arg Ile	Ser 4480	Thr Arg	Gly Arg	Lys 4485	Cys Lys	Pro	
Ile Phe 4490	Val Gln	Ile Ala	Arg 4495	Gln Val	Val Lys	Leu 4500	Asn Ala	Ser	
Asp Leu 4505	Arg Leu	Pro Ser	Arg 4510	Ala Trp	Lys Val	Lys 4515	Leu Val	Gly	
Glu Gly 4520	Ala Asp	Asp Ala	Gly 4525	Gly Val	Phe Asp	Asp 4530	Thr Ile	Thr	
Glu Met 4535	Cys Gln	Glu Leu	Glu 4540	Thr Gly	Ile Val	Asp 4545	Leu Leu	Ile	
Pro Ser 4550	Pro Asn	Ala Thr	Ala 4555	Glu Val	Gly Tyr	Asn 4560	Arg Asp	Arg	
Phe Leu 4565	Phe Asn	Pro Ser	Ala 4570	Cys Leu	Asp Glu	His 4575	Leu Met	Gln	
Phe Lys 4580	Phe Leu	Gly Ile	Leu 4585	Met Gly	Val Ala	Ile 4590	Arg Thr	Lys	
Lys Pro 4595	Leu Asp	Leu His	Leu 4600	Ala Pro	Leu Val	Trp 4605	Lys Gln	Leu	
Cys Cys 4610	Val Pro	Leu Thr	Leu 4615	Glu Asp	Leu Glu	Glu 4620	Val Asp	Leu	
Leu Tyr 4625	Val Gln	Thr Leu	Asn 4630	Ser Ile	Leu His	Ile 4635	Glu Asp	Ser	
Gly Ile 4640	Thr Glu	Glu Ser	Phe 4645	His Glu	Met Ile	Pro 4650	Leu Asp	Ser	
Phe Val 4655	Gly Gln	Ser Ala	Asp 4660	Gly Lys	Met Val	Pro 4665	Ile Ile	Pro	

Glu Ile Asp Leu Gln Ile Leu Ser Lys Val Gln Ala Gln Tyr Pro Gly

65		70		75		80
Val Cys Ile Asn	Asn Glu Val Val Glu	Pro Ser Ala Glu Gln Ile Ala				
	85	90			95	
Lys Tyr Lys Glu Leu Val Ala Lys Thr Ser Asn Leu Glu Asn Val Lys						
	100	105			110	
Phe Ala Trp His Lys Glu Thr Ser Ser Glu Tyr Gln Ser Arg Met Leu						
	115	120			125	
Glu Lys Lys Glu Leu Gln Lys Trp Asp Phe Ile His Met Ile Gln Met						
	130	135			140	
Leu Tyr Tyr Val Lys Asp Ile Pro Ala Thr Leu Lys Phe Phe His Ser						
	145	150			155	160
Leu Leu Gly Thr Asn Ala Lys Met Leu Ile Ile Val Val Ser Gly Ser						
	165	170				175
Ser Gly Trp Asp Lys Leu Trp Lys Lys Tyr Gly Ser Arg Phe Pro Gln						
	180	185			190	
Asp Asp Leu Cys Gln Tyr Ile Thr Ser Asp Asp Leu Thr Gln Met Leu						
	195	200			205	
Asp Asn Leu Gly Leu Lys Tyr Glu Cys Tyr Asp Leu Leu Ser Thr Met						
	210	215			220	
Asp Ile Ser Asp Cys Phe Ile Asp Gly Asn Glu Asn Gly Asp Leu Leu						
	225	230			235	240
Trp Asp Phe Leu Thr Glu Thr Cys Asn Phe Asn Ala Thr Ala Pro Pro						
	245	250				255
Asp Leu Arg Ala Glu Leu Gly Lys Asp Leu Gln Glu Pro Glu Phe Ser						
	260	265			270	
Ala Lys Lys Glu Gly Lys Val Leu Phe Asn Asn Thr Leu Ser Phe Ile						
	275	280			285	
Val Ile Glu Ala						
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Met Ala Leu Ser Tyr Arg Val Ser Glu Leu Gln Ser Thr Ile Pro Glu						
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His Ile Leu Gln Ser Thr Phe Val His Val Ile Ser Ser Asn Trp Ser						
	20	25			30	
Gly Leu Gln Thr Glu Ser Ile Pro Glu Glu Met Lys Gln Ile Val Glu						
	35	40			45	

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Glu 50	Gln	Gly	Asn	Lys	Leu	His 55	Trp	Ala	Ala	Leu	Leu 60	Ile	Leu	Met	Val
Ile 65	Ile	Pro	Thr	Ile	Gly 70	Gly	Asn	Thr	Leu	Val 75	Ile	Leu	Ala	Val	Ser 80
Leu	Glu	Lys	Lys	Leu 85	Gln	Tyr	Ala	Thr	Asn 90	Tyr	Phe	Leu	Met	Ser 95	Leu
Ala	Val	Ala	Asp 100	Leu	Leu	Val	Gly	Leu 105	Phe	Val	Met	Pro	Ile 110	Ala	Leu
Leu	Thr	Ile 115	Met	Phe	Glu	Ala	Met 120	Trp	Pro	Leu	Pro	Leu 125	Val	Leu	Cys
Pro	Ala 130	Trp	Leu	Phe	Leu	Asp 135	Val	Leu	Phe	Ser	Thr 140	Ala	Ser	Ile	Met
His 145	Leu	Cys	Ala	Ile	Ser 150	Val	Asp	Arg	Tyr	Ile 155	Ala	Ile	Lys	Lys	Pro 160
Ile	Gln	Ala	Asn	Gln 165	Tyr	Asn	Ser	Arg	Ala 170	Thr	Ala	Phe	Ile	Lys 175	Ile
Thr	Val	Val	Trp 180	Leu	Ile	Ser	Ile	Gly 185	Ile	Ala	Ile	Pro 190	Val	Pro	Ile
Lys	Gly 195	Ile	Glu	Thr	Asp	Val	Asp 200	Asn	Pro	Asn	Asn 205	Ile	Thr	Cys	Val
Leu 210	Thr	Lys	Glu	Arg	Phe	Gly 215	Asp	Phe	Met	Leu	Phe 220	Gly	Ser	Leu	Ala
Ala 225	Phe	Phe	Thr	Pro	Leu 230	Ala	Ile	Met	Ile	Val 235	Thr	Tyr	Phe	Leu	Thr 240
Ile	His	Ala	Leu	Gln 245	Lys	Lys	Ala	Tyr	Leu 250	Val	Lys	Asn	Lys	Pro 255	Pro
Gln	Arg	Leu	Thr 260	Trp	Leu	Thr	Val	Ser 265	Thr	Val	Phe	Gln	Arg 270	Asp	Glu
Thr	Pro	Cys 275	Ser	Ser	Pro	Glu	Lys 280	Val	Ala	Met	Leu	Asp 285	Gly	Ser	Arg
Lys 290	Asp	Lys	Ala	Leu	Pro	Asn 295	Ser	Gly	Asp	Glu	Thr 300	Leu	Met	Arg	Arg
Thr 305	Ser	Thr	Ile	Gly	Lys 310	Lys	Ser	Val	Gln	Thr 315	Ile	Ser	Asn	Glu	Gln 320
Arg	Ala	Ser	Lys 325	Val	Leu	Gly	Ile	Val	Phe 330	Phe	Leu	Phe	Leu	Leu	Met 335
Trp	Cys	Pro	Phe 340	Phe	Ile	Thr	Asn	Ile 345	Thr	Leu	Val	Leu	Cys 350	Asp	Ser
Cys	Asn 355	Gln	Thr	Thr	Leu	Gln	Met 360	Leu	Leu	Glu	Ile 365	Phe	Val	Trp	Ile

Gly Tyr Val Ser Ser Gly Val Asn Pro Leu Val Tyr Thr Leu Phe Asn
370 375 380

Lys Thr Phe Arg Asp Ala Phe Gly Arg Tyr Ile Thr Cys Asn Tyr Arg
385 390 395 400

Ala Thr Lys Ser Val Lys Thr Leu Arg Lys Arg Ser Ser Lys Ile Tyr
405 410 415

Phe Arg Asn Pro Met Ala Glu Asn Ser Lys Phe Phe Lys Lys His Gly
420 425 430

Ile Arg Asn Gly Ile Asn Pro Ala Met Tyr Gln Ser Pro Met Arg Leu
435 440 445

Arg Ser Ser Thr Ile Gln Ser Ser Ser Ile Ile Leu Leu Asp Thr Leu
450 455 460

Leu Leu Thr Glu Asn Glu Gly Asp Lys Thr Glu Glu Gln Val Ser Tyr
465 470 475 480

Val

<210> 73
<211> 189
<212> PRT
<213> Homo sapiens

<400> 73

Met Ala Leu Ser Phe Ser Leu Leu Met Ala Val Leu Val Leu Ser Tyr
1 5 10 15

Lys Ser Ile Cys Ser Leu Gly Cys Asp Leu Pro Gln Thr His Ser Leu
20 25 30

Gly Asn Arg Arg Ala Leu Ile Leu Leu Ala Gln Met Gly Arg Ile Ser
35 40 45

Pro Phe Ser Cys Leu Lys Asp Arg His Asp Phe Gly Phe Pro Gln Glu
50 55 60

Glu Phe Asp Gly Asn Gln Phe Gln Lys Ala Gln Ala Ile Ser Val Leu
65 70 75 80

His Glu Met Ile Gln Gln Thr Phe Asn Leu Phe Ser Thr Lys Asp Ser
85 90 95

Ser Ala Thr Trp Glu Gln Ser Leu Leu Glu Lys Phe Ser Thr Glu Leu
100 105 110

Asn Gln Gln Leu Asn Asp Met Glu Ala Cys Val Ile Gln Glu Val Gly
115 120 125

Val Glu Glu Thr Pro Leu Met Asn Val Asp Ser Ile Leu Ala Val Lys
130 135 140

Lys Tyr Phe Gln Arg Ile Thr Leu Tyr Leu Thr Glu Lys Lys Tyr Ser
145 150 155 160

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Ph	Leu	Leu	Leu	Ala	Cys	Gly	Thr	Leu	Val	Ala	Ala	Leu	Leu	Gly	Ala
			20					25					30		
Ala	His	Arg	Leu	Gly	Leu	Phe	Tyr	Gln	Leu	Leu	His	Lys	Val	Asp	Lys
			35				40					45			
Ala	Ser	Val	Arg	His	Gly	Gly	Glu	Asn	Val	Ala	Ala	Val	Leu	Arg	Ala
			50			55					60				
His	Gly	Val	Arg	Phe	Ile	Phe	Thr	Leu	Val	Gly	Gly	His	Ile	Ser	Pro
					70					75					80
Leu	Leu	Val	Ala	Cys	Glu	Lys	Leu	Gly	Ile	Arg	Val	Val	Asp	Thr	Arg
			85					90						95	
His	Glu	Val	Thr	Ala	Val	Phe	Ala	Ala	Asp	Ala	Met	Ala	Arg	Leu	Ser
			100					105					110		
Gly	Thr	Val	Gly	Val	Ala	Ala	Val	Thr	Ala	Gly	Pro	Gly	Leu	Thr	Asn
			115				120					125			
Thr	Val	Thr	Ala	Val	Lys	Asn	Ala	Gln	Met	Ala	Gln	Ser	Pro	Ile	Leu
			130			135					140				
Leu	Leu	Gly	Gly	Ala	Ala	Ser	Thr	Leu	Leu	Gln	Asn	Arg	Gly	Ala	Leu
					150					155					160
Gln	Ala	Val	Asp	Gln	Leu	Ser	Leu	Phe	Arg	Pro	Leu	Cys	Lys	Phe	Cys
			165					170						175	
Val	Ser	Val	Arg	Arg	Val	Arg	Asp	Ile	Val	Pro	Thr	Leu	Arg	Ala	Ala
			180					185					190		
Met	Ala	Ala	Ala	Gln	Ser	Xaa	Thr	Pro	Gly	Pro	Val	Phe	Val	Glu	Leu
			195				200					205			
Pro	Val	Asp	Val	Leu	Tyr	Pro	Tyr	Phe	Met	Val	Gln	Lys	Glu	Met	Val
			210			215					220				
Pro	Ala	Lys	Pro	Pro	Lys	Gly	Leu	Val	Gly	Arg	Val	Val	Ser	Trp	Tyr
					230					235					240
Leu	Glu	Asn	Tyr	Leu	Ala	Asn	Leu	Phe	Ala	Gly	Ala	Trp	Glu	Pro	Gln
			245					250					255		
Pro	Glu	Gly	Pro	Leu	Pro	Leu	Asp	Ile	Pro	Gln	Ala	Ser	Pro	Gln	Gln
			260					265					270		
Val	Gln	Arg	Cys	Val	Glu	Ile	Leu	Ser	Arg	Ala	Lys	Arg	Pro	Leu	Met
			275				280					285			
Val	Leu	Gly	Ser	Gln	Ala	Leu	Leu	Thr	Pro	Thr	Ser	Ala	Asp	Lys	Leu
			290			295					300				
Arg	Ala	Ala	Val	Glu	Thr	Leu	Gly	Val	Pro	Cys	Phe	Leu	Gly	Gly	Met
					310					315					320
Ala	Arg	Gly	Leu	Leu	Gly	Arg	Asn	His	Pro	Leu	His	Ile	Arg	Glu	Asn
			325					330					335		

<210>	76
<211>	349
<212>	PRT

<213> Homo sapiens

<400> 76

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Met Pro Val Glu Arg Met Arg Met Arg Pro Trp Leu Glu Glu Gln Ile
1          5          10          15

Asn Ser Asn Thr Ile Pro Gly Leu Lys Trp Leu Asn Lys Glu Lys Lys
20          25          30

Ile Phe Gln Ile Pro Trp Met His Ala Ala Arg His Gly Trp Asp Val
35          40          45

Glu Lys Asp Ala Pro Leu Phe Arg Asn Arg Ala Ile His Thr Gly Lys
50          55          60

His Gln Pro Gly Val Asp Lys Pro Asp Pro Lys Thr Trp Lys Ala Asn
65          70          75          80

Phe Arg Cys Ala Met Asn Ser Leu Pro Asp Ile Glu Glu Val Lys Asp
85          90          95

Lys Ser Ile Lys Lys Gly Asn Asn Ala Phe Arg Val Tyr Arg Met Leu
100         105         110

Pro Leu Ser Glu Arg Pro Ser Lys Lys Gly Lys Lys Pro Lys Thr Glu
115         120         125

Lys Glu Asp Lys Val Lys His Ile Lys Gln Glu Pro Val Glu Ser Ser
130         135         140

Leu Gly Leu Ser Asn Gly Val Ser Asp Leu Ser Pro Glu Tyr Ala Val
145         150         155         160

Leu Thr Ser Thr Ile Lys Asn Glu Val Asp Ser Thr Val Asn Ile Ile
165         170         175

Val Val Gly Gln Ser His Leu Asp Ser Asn Ile Glu Asn Gln Glu Ile
180         185         190

Val Thr Asn Pro Pro Asp Ile Cys Gln Val Val Glu Val Thr Thr Glu
195         200         205

Ser Asp Glu Gln Pro Val Ser Met Ser Glu Leu Tyr Pro Leu Gln Ile
210         215         220

Ser Pro Val Ser Ser Tyr Ala Glu Ser Glu Thr Thr Asp Ser Val Pro
225         230         235         240

Ser Asp Glu Glu Ser Ala Glu Gly Arg Pro His Trp Arg Lys Arg Asn
245         250         255

Ile Glu Gly Lys Gln Tyr Leu Ser Asn Met Gly Thr Arg Gly Ser Tyr
260         265         270

Leu Leu Pro Gly Met Ala Ser Phe Val Thr Ser Asn Lys Pro Asp Leu
275         280         285

Gln Val Thr Ile Lys Glu Glu Ser Asn Pro Val Pro Tyr Asn Ser Ser
290         295         300

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Trp Pro Pro Phe Gln Asp Leu Pro Leu Ser Ser Ser Met Thr Pro Ala
305 310 315 320

Ser Ser Ser Ser Arg Pro Asp Arg Glu Thr Arg Ala Ser Val Ile Lys
325 330 335

Lys Thr Ser Asp Ile Thr Gln Ala Arg Val Lys Ser Cys
340 345

<210> 77

<211> 338

<212> PRT

<213> Homo sapiens

<400> 77

Met Ile Asn Ser Thr Ser Thr Gln Pro Pro Asp Glu Ser Cys Ser Gln
1 5 10 15

Asn Leu Leu Ile Thr Gln Gln Ile Ile Pro Val Leu Tyr Cys Met Val
20 25 30

Phe Ile Ala Gly Ile Leu Leu Asn Gly Val Ser Gly Trp Ile Phe Phe
35 40 45

Tyr Val Pro Ser Ser Lys Ser Phe Ile Ile Tyr Leu Lys Asn Ile Val
50 55 60

Ile Ala Asp Phe Val Met Ser Leu Thr Phe Pro Phe Lys Ile Leu Gly
65 70 75 80

Asp Ser Gly Leu Gly Pro Trp Gln Leu Asn Val Phe Val Cys Arg Val
85 90 95

Ser Ala Val Leu Phe Tyr Val Asn Met Tyr Val Ser Ile Val Phe Phe
100 105 110

Gly Leu Ile Ser Phe Asp Arg Tyr Tyr Lys Ile Val Lys Pro Leu Trp
115 120 125

Thr Ser Phe Ile Gln Ser Val Ser Tyr Ser Lys Leu Leu Ser Val Ile
130 135 140

Val Trp Met Leu Met Leu Leu Leu Ala Val Pro Asn Ile Ile Leu Thr
145 150 155 160

Asn Gln Ser Val Arg Glu Val Thr Gln Ile Lys Cys Ile Glu Leu Lys
165 170 175

Ser Glu Leu Gly Arg Lys Trp His Lys Ala Ser Asn Tyr Ile Phe Val
180 185 190

Ala Ile Phe Trp Ile Val Phe Leu Leu Leu Ile Val Phe Tyr Thr Ala
195 200 205

Ile Thr Lys Lys Ile Phe Lys Ser His Leu Lys Ser Ser Arg Asn Ser
210 215 220

Thr Ser Val Lys Lys Lys Ser Ser Arg Asn Ile Phe Ser Ile Val Phe

225 230 235 240

Val Phe Phe Val Cys Phe Val Pro Tyr His Ile Ala Arg Ile Pro Tyr
245 250 255

Thr Lys Ser Gln Thr Glu Ala His Tyr Ser Cys Gln Ser Lys Glu Ile
260 265 270

Leu Arg Tyr Met Lys Glu Phe Thr Leu Leu Leu Ser Ala Ala Asn Val
275 280 285

Cys Leu Asp Pro Ile Ile Tyr Phe Phe Leu Cys Gln Pro Phe Arg Glu
290 295 300

Ile Leu Cys Lys Lys Leu His Ile Pro Leu Lys Ala Gln Asn Asp Leu
305 310 315 320

Asp Ile Ser Arg Ile Lys Arg Gly Asn Thr Thr Leu Glu Ser Thr Asp
325 330 335

Thr Leu

<210> 78
<211> 232
<212> PRT
<213> Homo sapiens

<400> 78

Leu Glu Thr Gln Ile Glu Ala Leu Lys Glu Glu Leu Leu Phe Met Lys
1 5 10 15

Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln Ala Gln Ile Ala Ser
20 25 30

Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys Ser Gln Asp Leu Ser
35 40 45

Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp Glu Leu Ala Arg Lys
50 55 60

Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln Gln Ile Glu Glu Ser
65 70 75 80

Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val Gly Ala Ala Glu Thr
85 90 95

Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser Leu Glu Ile Arg Leu
100 105 110

Asp Arg Met Arg Asn Leu Lys Ala Ser Leu Glu Asn Ser Leu Arg Glu
115 120 125

Val Glu Ala Arg Tyr Ala Leu Gln Met Glu Gln Leu Asn Gly Ile Leu
130 135 140

Leu His Leu Glu Ser Glu Leu Ala Gln Thr Arg Ala Glu Gly Gln Arg
145 150 155 160

Gln Ala Gln Glu Tyr Glu Ala Leu Leu Asn Ile Lys Val Lys Leu Glu
165 170 175

Ala Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Asp Gly Glu Asp Phe
180 185 190

Asn Leu Gly Asp Ala Leu Asp Ser Ser Asn Ser Met Gln Thr Ile Gln
195 200 205

Lys Thr Thr Thr Arg Arg Ile Val Asp Gly Lys Val Val Ser Glu Thr
210 215 220

Asn Asp Thr Lys Val Leu Arg His
225 230

<210> 79

<211> 483

<212> PRT

<213> Homo sapiens

<400> 79

Met Ser Ile Arg Val Thr Gln Lys Ser Tyr Lys Val Ser Thr Ser Gly
1 5 10 15

Pro Arg Ala Phe Ser Ser Arg Ser Tyr Thr Ser Gly Pro Gly Ser Arg
20 25 30

Ile Ser Ser Ser Ser Phe Ser Arg Val Gly Ser Ser Asn Phe Arg Gly
35 40 45

Gly Leu Gly Gly Gly Tyr Gly Gly Ala Ser Gly Met Gly Gly Ile Thr
50 55 60

Ala Val Thr Val Asn Gln Ser Leu Leu Ser Pro Leu Val Leu Glu Val
65 70 75 80

Asp Pro Asn Ile Gln Ala Val Arg Thr Gln Glu Lys Glu Gln Ile Lys
85 90 95

Thr Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu
100 105 110

Glu Gln Gln Asn Lys Met Leu Glu Thr Lys Trp Ser Leu Leu Gln Gln
115 120 125

Gln Lys Thr Ala Arg Ser Asn Met Asp Asn Met Phe Glu Ser Tyr Ile
130 135 140

Asn Asn Leu Arg Arg Gln Leu Glu Thr Leu Gly Gln Glu Lys Leu Lys
145 150 155 160

Leu Glu Ala Glu Leu Gly Asn Met Gln Gly Leu Val Glu Asp Phe Lys
165 170 175

Asn Lys Tyr Glu Asp Glu Ile Asn Lys Arg Thr Glu Met Glu Asn Glu
180 185 190

Phe Val Leu Ile Lys Lys Asp Val Asp Glu Ala Tyr Met Asn Lys Val
195 200 205

Glu Leu Glu Ser Arg Leu Glu Gly Leu Thr Asp Glu Ile Asn Phe Leu
 210 215 220

Arg Gln Leu Tyr Glu Glu Glu Ile Arg Glu Leu Gln Ser Gln Ile Ser
 225 230 235 240

Asp Thr Ser Val Val Leu Ser Met Asp Asn Ser Arg Ser Leu Asp Met
 245 250 255

Asp Ser Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Asp Ile Ala Asn
 260 265 270

Arg Ser Arg Ala Glu Ala Glu Ser Met Tyr Gln Ile Lys Tyr Glu Glu
 275 280 285

Leu Gln Ser Leu Ala Gly Lys His Gly Asp Asp Leu Arg Arg Thr Lys
 290 295 300

Thr Glu Ile Ser Glu Met Asn Arg Asn Ile Ser Arg Leu Gln Ala Glu
 305 310 315 320

Ile Glu Gly Leu Lys Gly Gln Arg Ala Ser Leu Glu Ala Ala Ile Ala
 325 330 335

Asp Ala Glu Gln Arg Gly Glu Leu Ala Ile Lys Asp Ala Asn Ala Lys
 340 345 350

Leu Ser Glu Leu Glu Ala Ala Leu Gln Arg Ala Lys Gln Asp Met Ala
 355 360 365

Arg Gln Leu Arg Glu Tyr Gln Glu Leu Met Asn Val Lys Leu Ala Leu
 370 375 380

Asp Ile Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Ser
 385 390 395 400

Arg Leu Glu Ser Gly Met Gln Asn Met Ser Ile His Thr Lys Thr Thr
 405 410 415

Ser Gly Tyr Ala Gly Gly Leu Ser Ser Ala Tyr Gly Gly Leu Thr Ser
 420 425 430

Pro Gly Leu Ser Tyr Ser Leu Gly Ser Ser Phe Gly Ser Gly Ala Gly
 435 440 445

Ser Ser Ser Phe Ser Arg Thr Ser Ser Ser Arg Ala Val Val Val Lys
 450 455 460

Lys Ile Glu Thr Arg Asp Gly Lys Leu Val Ser Glu Ser Ser Asp Val
 465 470 475 480

Leu Pro Lys

<210> 80
 <211> 440
 <212> PRT
 <213> Homo sapiens

<400> 80

Met Gly Pro Pro Gly Ser Pro Trp Gln Trp Val Thr Leu Leu Leu Gly
1 5 10 15

Leu Leu Leu Pro Pro Ala Ala Pro Phe Trp Leu Leu Asn Val Leu Phe
20 25 30

Pro Pro His Thr Thr Pro Lys Ala Glu Leu Ser Asn His Thr Arg Pro
35 40 45

Val Ile Leu Val Pro Gly Cys Leu Gly Asn Gln Leu Glu Ala Lys Leu
50 55 60

Asp Lys Pro Asp Val Val Asn Trp Met Cys Tyr Arg Lys Thr Glu Asp
65 70 75 80

Phe Phe Thr Ile Trp Leu Asp Leu Asn Met Phe Leu Pro Leu Gly Val
85 90 95

Asp Cys Trp Ile Asp Asn Thr Arg Val Val Tyr Asn Arg Ser Ser Gly
100 105 110

Leu Val Ser Asn Ala Pro Gly Val Gln Ile Arg Val Pro Gly Phe Gly
115 120 125

Lys Thr Tyr Ser Val Glu Tyr Leu Asp Ser Ser Lys Leu Ala Gly Tyr
130 135 140

Leu His Thr Leu Val Gln Asn Leu Val Asn Asn Gly Tyr Val Arg Asp
145 150 155 160

Glu Thr Val Arg Ala Ala Pro Tyr Asp Trp Arg Leu Glu Pro Gly Gln
165 170 175

Gln Glu Glu Tyr Trp Arg Lys Leu Ala Gly Leu Val Glu Glu Met His
180 185 190

Ala Ala Tyr Gly Lys Pro Val Phe Leu Ile Gly His Ser Leu Gly Cys
195 200 205

Leu His Leu Leu Tyr Phe Leu Leu Arg Gln Pro Gln Ala Trp Lys Asp
210 215 220

Arg Phe Ile Asp Gly Phe Ile Ser Leu Gly Ala Pro Trp Gly Gly Ser
225 230 235 240

Ile Lys Pro Met Leu Val Leu Ala Ser Gly Asp Asn Gln Gly Ile Pro
245 250 255

Ile Met Ser Ser Ile Lys Leu Lys Glu Glu Gln Arg Ile Thr Thr Thr
260 265 270

Ser Pro Trp Met Phe Pro Ser Arg Met Ala Trp Pro Glu Asp His Val
275 280 285

Phe Ile Ser Thr Pro Ser Phe Asn Tyr Thr Gly Arg Asp Phe Gln Arg
290 295 300

Phe Phe Ala Asp Leu His Phe Glu Glu Gly Trp Tyr Met Trp Leu Gln

305 310 315 320

Ser Arg Asp Leu Leu Ala Gly Leu Pro Ala Pro Gly Val Glu Val Tyr
325 330 335

Cys Leu Tyr Gly Val Gly Leu Pro Thr Pro Arg Thr Tyr Ile Tyr Asp
340 345 350

His Gly Phe Pro Tyr Thr Asp Pro Val Gly Val Leu Tyr Glu Asp Gly
355 360 365

Asp Asp Thr Val Ala Thr Arg Ser Thr Glu Leu Cys Gly Leu Trp Gln
370 375 380

Gly Arg Gln Pro Gln Pro Val His Leu Leu Pro Leu His Gly Ile Gln
385 390 395

His Leu Asn Met Val Phe Ser Asn Leu Thr Leu Glu His Ile Asn Ala
405 410 415

Ile Leu Leu Gly Ala Tyr Arg Gln Gly Pro Pro Ala Ser Pro Thr Ala
420 425 430

Ser Pro Glu Pro Pro Pro Pro Glu
435 440

<210> 81
<211> 135
<212> PRT
<213> Homo sapiens

<400> 81

Met Ala Cys Gly Leu Val Ala Ser Asn Leu Asn Leu Lys Pro Gly Glu
1 5 10 15

Cys Leu Arg Val Arg Gly Glu Val Ala Pro Asp Ala Lys Ser Phe Val
20 25 30

Leu Asn Leu Gly Lys Asp Ser Asn Asn Leu Cys Leu His Phe Asn Pro
35 40 45

Arg Phe Asn Ala His Gly Asp Ala Asn Thr Ile Val Cys Asn Ser Lys
50 55 60

Asp Gly Gly Ala Trp Gly Thr Glu Gln Arg Glu Ala Val Phe Pro Phe
65 70 75 80

Gln Pro Gly Ser Val Ala Glu Val Cys Ile Thr Phe Asp Gln Ala Asn
85 90 95

Leu Thr Val Lys Leu Pro Asp Gly Tyr Glu Phe Lys Phe Pro Asn Arg
100 105 110

Leu Asn Leu Glu Ala Ile Asn Tyr Met Ala Ala Asp Gly Asp Phe Lys
115 120 125

Ile Lys Cys Val Ala Phe Asp
130 135

<210> 82
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 82

Met Ala Pro Pro Gln Val Leu Ala Phe Gly Leu Leu Leu Ala Ala Ala
 1 5 10 15

Thr Ala Thr Phe Ala Ala Ala Gln Glu Cys Val Cys Glu Asn Tyr
 20 25 30

Lys Leu Ala Val Asn Cys Phe Val Asn Asn Asn Arg Gln Cys Gln Cys
 35 40 45

Thr Ser Val Gly Ala Gln Asn Thr Val Ile Cys Ser Lys Leu Ala Ala
 50 55 60

Lys Cys Leu Val Met Lys Ala Glu Met Asn Gly Ser Lys Leu Gly Arg
 65 70 75 80

Arg Ala Lys Pro Glu Gly Ala Leu Gln Asn Asn Asp Gly Leu Tyr Asp
 85 90 95

Pro Asp Cys Asp Glu Ser Gly Leu Phe Lys Ala Lys Gln Cys Asn Gly
 100 105 110

Thr Ser Thr Cys Trp Cys Val Asn Thr Ala Gly Val Arg Arg Thr Asp
 115 120 125

Lys Asp Thr Glu Ile Thr Cys Ser Glu Arg Val Arg Thr Tyr Trp Ile
 130 135 140

Ile Ile Glu Leu Lys His Lys Ala Arg Glu Lys Pro Tyr Asp Ser Lys
 145 150 155 160

Ser Leu Arg Thr Ala Leu Gln Lys Glu Ile Thr Thr Arg Tyr Gln Leu
 165 170 175

Asp Pro Lys Phe Ile Thr Ser Ile Leu Tyr Glu Asn Asn Val Ile Thr
 180 185 190

Ile Asp Leu Val Gln Asn Ser Ser Gln Lys Thr Gln Asn Asp Val Asp
 195 200 205

Ile Ala Asp Val Ala Tyr Tyr Phe Glu Lys Asp Val Lys Gly Glu Ser
 210 215 220

Leu Phe His Ser Lys Lys Met Asp Leu Thr Val Asn Gly Glu Gln Leu
 225 230 235 240

Asp Leu Asp Pro Gly Gln Thr Leu Ile Tyr Tyr Val Asp Glu Lys Ala
 245 250 255

Pro Glu Phe Ser Met Gln Gly Leu Lys Ala Gly Val Ile Ala Val Ile
 260 265 270

Val Val Val Val Ile Ala Val Val Ala Gly Ile Val Val Leu Val Ile
 275 280 285

Ser Arg Lys Lys Arg Met Ala Lys Tyr Glu Lys Ala Glu Ile Lys Glu
290 295 300

Met Gly Glu Met His Arg Glu Leu Asn Ala
305 310

<210> 83

<211> 720

<212> PRT

<213> Homo sapiens

<400> 83

Lys Ser Val Trp Lys Gly Gly Leu Arg Glu Arg Asp Pro Arg Gly Thr
1 5 10 15

Arg Gly Gly Gly Arg Arg Gly Thr Gly Ser Gln Pro Ala Leu Cys Leu
20 25 30

Gly Ala Gly Arg Gln Glu Gly Ala Met Ala Leu Asp Gly Ile Arg Met
35 40 45

Pro Asp Gly Cys Tyr Ala Asp Gly Thr Trp Glu Leu Ser Val His Val
50 55 60

Thr Asp Leu Asn Arg Asp Ile Thr Leu Arg Val Thr Gly Glu Val His
65 70 75 80

Ile Gly Gly Val Met Leu Lys Leu Val Glu Lys Leu Asp Val Lys Lys
85 90 95

Asp Trp Ser Asp His Ala Leu Trp Trp Glu Lys Lys Arg Thr Trp Leu
100 105 110

Leu Lys Thr His Trp Thr Leu Asp Lys Tyr Gly Ile Gln Ala Asp Ala
115 120 125

Lys Leu Gln Phe Thr Pro Gln His Lys Leu Leu Arg Leu Gln Leu Pro
130 135 140

Asn Met Lys Tyr Val Lys Val Lys Val Asn Phe Ser Asp Arg Val Phe
145 150 155 160

Lys Ala Val Ser Asp Ile Cys Lys Thr Phe Asn Ile Arg His Pro Glu
165 170 175

Glu Leu Ser Leu Leu Lys Lys Pro Arg Asp Pro Thr Lys Lys Lys Lys
180 185 190

Lys Lys Leu Asp Asp Gln Ser Glu Asp Glu Ala Leu Glu Leu Glu Gly
195 200 205

Pro Leu Ile Thr Pro Gly Ser Gly Ser Ile Tyr Ser Ser Pro Gly Leu
210 215 220

Tyr Ser Lys Thr Met Thr Pro Thr Tyr Asp Ala His Asp Gly Ser Pro
225 230 235 240

Leu Ser Pro Thr Ser Ala Trp Phe Gly Asp Ser Ala Leu Ser Glu Gly

245	250	255
Asn Pro Gly Ile Leu Ala Val Ser Gln Pro Ile Thr Ser Pro Glu Ile		
260	265	270
Leu Ala Lys Met Phe Lys Pro Gln Ala Leu Leu Asp Lys Ala Lys Ile		
275	280	285
Asn Gln Gly Trp Leu Asp Ser Ser Arg Ser Leu Met Glu Gln Asp Val		
290	295	300
Lys Glu Asn Glu Ala Leu Leu Leu Arg Phe Lys Tyr Tyr Ser Phe Phe		
305	310	320
Asp Leu Asn Pro Lys Tyr Asp Ala Ile Arg Ile Asn Gln Leu Tyr Glu		
325	330	335
Gln Ala Lys Trp Ala Ile Leu Leu Glu Glu Ile Glu Cys Thr Glu Glu		
340	345	350
Glu Met Met Met Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser		
355	360	365
Ile Met Thr Ser Glu Asn His Leu Asn Asn Ser Asp Lys Glu Val Asp		
370	375	380
Glu Val Asp Ala Ala Leu Ser Asp Leu Glu Ile Thr Leu Glu Gly Gly		
385	390	400
Lys Thr Ser Thr Ile Leu Gly Asp Ile Thr Ser Ile Pro Glu Leu Ala		
405	410	415
Asp Tyr Ile Lys Val Phe Lys Pro Lys Lys Leu Thr Leu Lys Gly Tyr		
420	425	430
Lys Gln Tyr Trp Cys Thr Phe Lys Asp Thr Ser Ile Ser Cys Tyr Lys		
435	440	445
Ser Lys Glu Glu Ser Ser Gly Thr Pro Ala His Gln Met Asn Leu Arg		
450	455	460
Gly Cys Glu Val Thr Pro Asp Val Asn Ile Ser Gly Gln Lys Phe Asn		
465	470	480
Ile Lys Leu Leu Ile Pro Val Ala Glu Gly Met Asn Glu Ile Trp Leu		
485	490	495
Arg Cys Asp Asn Glu Lys Gln Tyr Ala His Trp Met Ala Ala Cys Arg		
500	505	510
Leu Ala Ser Lys Gly Lys Thr Met Ala Asp Ser Ser Tyr Asn Leu Glu		
515	520	525
Val Gln Asn Ile Leu Ser Phe Leu Lys Met Gln His Leu Asn Pro Asp		
530	535	540
Pro Gln Leu Ile Pro Glu Gln Ile Thr Thr Asp Ile Thr Pro Glu Cys		
545	550	555
Leu Val Ser Pro Arg Tyr Leu Lys Lys Tyr Lys Asn Lys Gln Ile Thr		

565 570 575

Ala Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Met Ser Leu Ile
580 585 590

Glu Ala Lys Met Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Glu Phe
595 600 605

Gly Ile Thr His Phe Ile Ala Arg Phe Gln Gly Gly Lys Lys Glu Glu
610 615 620

Leu Ile Gly Ile Ala Tyr Asn Arg Leu Ile Arg Met Asp Ala Ser Thr
625 630 635 640

Gly Asp Ala Ile Lys Thr Trp Arg Phe Ser Asn Met Lys Gln Trp Asn
645 650 655

Val Asn Trp Glu Ile Lys Met Val Thr Val Glu Phe Ala Asp Glu Val
660 665 670

Arg Leu Ser Phe Ile Cys Thr Glu Val Asp Cys Lys Val Val His Glu
675 680 685

Phe Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Ala Lys Asp Gln Asn
690 695 700

Glu Ser Leu Asp Glu Glu Met Phe Tyr Lys Leu Thr Ser Gly Trp Val
705 710 715 720

<210> 84
<211> 582
<212> PRT
<213> Homo sapiens

<400> 84

Met Ser Pro Ala Pro Arg Pro Pro Arg Cys Leu Leu Leu Pro Leu Leu
1 5 10 15

Thr Leu Gly Thr Ala Leu Ala Ser Leu Gly Ser Ala Gln Ser Ser Ser
20 25 30

Phe Ser Pro Glu Ala Trp Leu Gln Gln Tyr Gly Tyr Leu Pro Pro Gly
35 40 45

Asp Leu Arg Thr His Thr Gln Arg Ser Pro Gln Ser Leu Ser Ala Ala
50 55 60

Ile Ala Ala Met Gln Lys Phe Tyr Gly Leu Gln Val Thr Gly Lys Ala
65 70 75 80

Asp Ala Asp Thr Met Lys Ala Met Arg Arg Pro Arg Cys Gly Val Pro
85 90 95

Asp Lys Phe Gly Ala Glu Ile Lys Ala Asn Val Arg Arg Lys Arg Tyr
100 105 110

Ala Ile Gln Gly Leu Lys Trp Gln His Asn Glu Ile Thr Phe Cys Ile
115 120 125

Gln Asn Tyr Thr Pro Lys Val Gly Glu Tyr Ala Thr Tyr Glu Ala Ile
130 135 140

Arg Lys Ala Phe Arg Val Trp Glu Ser Ala Thr Pro Leu Arg Phe Arg
145 150 155 160

Glu Val Pro Tyr Ala Tyr Ile Arg Glu Gly His Glu Lys Gln Ala Asp
165 170 175

Ile Met Ile Phe Phe Ala Glu Gly Phe His Gly Asp Ser Thr Pro Phe
180 185 190

Asp Gly Glu Gly Gly Phe Leu Ala His Ala Tyr Phe Pro Gly Pro Asn
195 200 205

Ile Gly Gly Asp Thr His Phe Asp Ser Ala Glu Pro Trp Thr Val Arg
210 215 220

Asn Glu Asp Leu Asn Gly Asn Asp Ile Phe Leu Val Ala Val His Glu
225 230 235 240

Leu Gly His Ala Leu Gly Leu Glu His Ser Ser Asp Pro Ser Ala Ile
245 250 255

Met Ala Pro Phe Tyr Gln Trp Met Asp Thr Glu Asn Phe Val Leu Pro
260 265 270

Asp Asp Asp Arg Arg Gly Ile Gln Gln Leu Tyr Gly Gly Glu Ser Gly
275 280 285

Phe Pro Thr Lys Met Pro Pro Gln Pro Arg Thr Thr Ser Arg Pro Ser
290 295 300

Val Pro Asp Lys Pro Lys Asn Pro Thr Tyr Gly Pro Asn Ile Cys Asp
305 310 315 320

Gly Asn Phe Asp Thr Val Ala Met Leu Arg Gly Glu Met Phe Val Phe
325 330 335

Lys Glu Arg Trp Phe Trp Arg Val Arg Asn Asn Gln Val Met Asp Gly
340 345 350

Tyr Pro Met Pro Ile Gly Gln Phe Trp Arg Gly Leu Pro Ala Ser Ile
355 360 365

Asn Thr Ala Tyr Glu Arg Lys Asp Gly Lys Phe Val Phe Phe Lys Gly
370 375 380

Asp Lys His Trp Val Phe Asp Glu Ala Ser Leu Glu Pro Gly Tyr Pro
385 390 395 400

Lys His Ile Lys Glu Leu Gly Arg Gly Leu Pro Thr Asp Lys Ile Asp
405 410 415

Ala Ala Leu Phe Trp Met Pro Asn Gly Lys Thr Tyr Phe Phe Arg Gly
420 425 430

Asn Lys Tyr Tyr Arg Phe Asn Glu Glu Leu Arg Ala Val Asp Ser Glu
435 440 445

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Ser Ile Thr Gln Arg Ala Ala Glu Cys Val His Arg Gly Phe Pro Glu
130 135 140

Ile Ser Phe Gln Pro Ser Ser Ala Val Val Thr Trp Glu Ser Val
145 150 155 160

Ala Pro Tyr Gln Gly Pro Ser Arg Asp Pro Asp Gln Lys Gly Lys Arg
165 170 175

Asn Thr Phe Gln Ala Val Leu Ala Ser Ser Asp Ser Ser Ser Tyr Ala
180 185 190

Ile Phe Leu Tyr Pro Glu Asp Gly Leu Gln Phe His Thr Thr Phe Ser
195 200 205

Lys Lys Glu Asn Asn Gln Val Pro Ala Val Val Ala Phe Ser Gln Gly
210 215 220

Ser Val Gly Phe Leu Trp Lys Ser Asn Gly Ala Tyr Asn Ile Phe Ala
225 230 235 240

Asn Asp Arg Glu Ser Ile Glu Asn Leu Ala Lys Ser Ser Asn Ser Gly
245 250 255

Gln Gln Gly Val Trp Val Phe Glu Ile Gly Ser Pro Ala Thr Thr Asn
260 265 270

Gly Val Val Pro Ala Asp Val Ile Leu Gly Thr Glu Asp Gly Ala Glu
275 280 285

Tyr Asp Asp Glu Asp Glu Asp Tyr Asp Leu Ala Thr Thr Arg Leu Gly
290 295 300

Leu Glu Asp Val Gly Thr Thr Pro Phe Ser Tyr Lys Ala Leu Arg Arg
305 310 315 320

Gly Gly Ala Asp Thr Tyr Ser Val Pro Ser Val Leu Ser Pro Arg Arg
325 330 335

Ala Ala Thr Glu Arg Pro Leu Gly Pro Pro Thr Glu Arg Thr Arg Ser
340 345 350

Phe Gln Leu Ala Val Glu Thr Phe His Gln Gln His Pro Gln Val Ile
355 360 365

Asp Val Asp Glu Val Glu Thr Gly Val Val Phe Ser Tyr Asn Thr
370 375 380

Asp Ser Arg Gln Thr Cys Ala Asn Asn Arg His Gln Cys Ser Val His
385 390 395 400

Ala Glu Cys Arg Asp Tyr Ala Thr Gly Phe Cys Cys Ser Cys Val Ala
405 410 415

Gly Tyr Thr Gly Asn Gly Arg Gln Cys Val Ala Glu Gly Ser Pro Gln
420 425 430

Arg Val Asn Gly Lys Val Lys Gly Arg Ile Phe Val Gly Ser Ser Gln
435 440 445

Val Pro Ile Val Phe Glu Asn Thr Asp Leu His Ser Tyr Val Val Met
450 455 460

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Asn His Gly Arg Ser Tyr Thr Ala Ile Ser Thr Ile Pro Glu Thr Val
465 470 475 480

Gly Tyr Ser Leu Leu Pro Leu Ala Pro Val Gly Gly Ile Ile Gly Trp
485 490 495

Met Phe Ala Val Glu Gln Asp Gly Phe Lys Asn Gly Phe Ser Ile Thr
500 505 510

Gly Gly Glu Phe Thr Arg Gln Ala Glu Val Thr Phe Val Gly His Pro
515 520 525

Gly Asn Leu Val Ile Lys Gln Arg Phe Ser Gly Ile Asp Glu His Gly
530 535 540

His Leu Thr Ile Asp Thr Glu Leu Glu Gly Arg Val Pro Gln Ile Pro
545 550 555 560

Phe Gly Ser Ser Val His Ile Glu Pro Tyr Thr Glu Leu Tyr His Tyr
565 570 575

Ser Thr Ser Val Ile Thr Ser Ser Ser Thr Arg Glu Tyr Thr Val Thr
580 585 590

Glu Pro Glu Arg Asp Gly Ala Ser Pro Ser Arg Ile Tyr Thr Tyr Gln
595 600 605

Trp Arg Gln Thr Ile Thr Phe Gln Glu Cys Val His Asp Asp Ser Arg
610 615 620

Pro Ala Leu Pro Ser Thr Gln Gln Leu Ser Val Asp Ser Val Phe Val
625 630 635 640

Leu Tyr Asn Gln Glu Glu Lys Ile Leu Arg Tyr Ala Phe Ser Asn Ser
645 650 655

Ile Gly Pro Val Arg Glu Gly Ser Pro Asp Ala Leu Gln Asn Pro Cys
660 665 670

Tyr Ile Gly Thr His Gly Cys Asp Thr Asn Ala Ala Cys Arg Pro Gly
675 680 685

Pro Arg Thr Gln Phe Thr Cys Glu Cys Ser Ile Gly Phe Arg Gly Asp
690 695 700

Gly Arg Thr Cys Tyr Asp Ile Asp Glu Cys Ser Glu Gln Pro Ser Val
705 710 715 720

Cys Gly Ser His Thr Ile Cys Asn Asn His Pro Gly Thr Phe Arg Cys
725 730 735

Glu Cys Val Glu Gly Tyr Gln Phe Ser Asp Glu Gly Thr Cys Val Ala
740 745 750

Val Val Asp Gln Arg Pro Ile Asn Tyr Cys Glu Thr Gly Leu His Asn
755 760 765

Cys Asp Ile Pro Gln Arg Ala Gln Cys Ile Tyr Thr Gly Gly Ser Ser
770 775 780

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Tyr Thr Cys Ser Cys Leu Pro Gly Phe Ser Gly Asp Gly Gln Ala Cys
 785 790 795 800
 Gln Asp Val Asp Glu Cys Gln Pro Ser Arg Cys His Pro Asp Ala Phe
 805 810 815
 Cys Tyr Asn Thr Pro Gly Ser Phe Thr Cys Gln Cys Lys Pro Gly Tyr
 820 825 830
 Gln Gly Asp Gly Phe Arg Cys Val Pro Gly Glu Val Glu Lys Thr Arg
 835 840 845
 Cys Gln His Glu Arg Glu His Ile Leu Gly Ala Ala Gly Ala Thr Asp
 850 855 860
 Pro Gln Arg Pro Ile Pro Pro Gly Leu Phe Val Pro Glu Cys Asp Ala
 865 870 875 880
 His Gly His Tyr Ala Pro Thr Gln Cys His Gly Ser Thr Gly Tyr Cys
 885 890 895
 Trp Cys Val Asp Arg Asp Gly Arg Glu Val Glu Gly Thr Arg Thr Arg
 900 905 910
 Pro Gly Met Thr Pro Pro Cys Leu Ser Thr Val Ala Pro Pro Ile His
 915 920 925
 Gln Gly Pro Ala Val Pro Thr Ala Val Ile Pro Leu Pro Pro Gly Thr
 930 935 940
 His Leu Leu Phe Ala Gln Thr Gly Lys Ile Glu Arg Leu Pro Leu Glu
 945 950 955 960
 Gly Asn Thr Met Arg Lys Thr Glu Ala Lys Ala Phe Leu His Val Pro
 965 970 975
 Ala Lys Val Ile Ile Gly Leu Ala Phe Asp Cys Val Asp Lys Met Val
 980 985 990
 Tyr Trp Thr Asp Ile Thr Glu Pro Ser Ile Gly Arg Ala Ser Leu His
 995 1000 1005
 Gly Gly Glu Pro Thr Thr Ile Ile Arg Gln Asp Leu Gly Ser Pro
 1010 1015 1020
 Glu Gly Ile Ala Val Asp His Leu Gly Arg Asn Ile Phe Trp Thr
 1025 1030 1035
 Asp Ser Asn Leu Asp Arg Ile Glu Val Ala Lys Leu Asp Gly Thr
 1040 1045 1050
 Gln Arg Arg Val Leu Phe Glu Thr Asp Leu Val Asn Pro Arg Gly
 1055 1060 1065
 Ile Val Thr Asp Ser Val Arg Gly Asn Leu Tyr Trp Thr Asp Trp
 1070 1075 1080
 Asn Arg Asp Asn Pro Lys Ile Glu Thr Ser Tyr Met Asp Gly Thr
 1085 1090 1095

0010107-03101

Leu	Arg	1100	Arg	Ile	Leu	Val	Gln	1105	Asn	Asp	Leu	Gly	Leu	1110	Pro	Asn	Gly	
Leu	His	1115	Phe	Asp	Ala	Phe	Ser	1120	Ser	Gln	Leu	Cys	Trp	1125	Val	Asp	Ala	
Gly	Thr	1130	Asn	Arg	Ala	Glu	Cys	1135	Leu	Asn	Pro	Ser	Gln	1140	Pro	Ser	Arg	
Arg	Lys	1145	Ala	Leu	Glu	Gly	Leu	1150	Gln	Tyr	Pro	Phe	Ala	1155	Val	Thr	Ser	
Tyr	Gly	1160	Lys	Asn	Leu	Tyr	Phe	1165	Thr	Asp	Trp	Lys	Met	1170	Asn	Ser	Val	
Val	Ala	1175	Leu	Asp	Leu	Ala	Ile	1180	Ser	Lys	Glu	Thr	Asp	1185	Ala	Phe	Gln	
Pro	His	1190	Lys	Gln	Thr	Arg	Leu	1195	Tyr	Gly	Ile	Thr	Thr	1200	Ala	Leu	Ser	
Gln	Cys	1205	Pro	Gln	Gly	His	Asn	1210	Tyr	Cys	Ser	Val	Asn	1215	Asn	Gly	Gly	
Cys	Thr	1220	His	Leu	Cys	Leu	Ala	1225	Thr	Pro	Gly	Ser	Arg	1230	Thr	Cys	Arg	
Cys	Pro	1235	Asp	Asn	Thr	Leu	Gly	1240	Val	Asp	Cys	Ile	Glu	1245	Arg			
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Gly	Gly	Asn	Pro	Gly	Gly	Pro	Asn	Pro	Ala	Ala	Gln	Ala	Ala	Arg	Gly			
			20					25						30				
Gly	Gly	Gly	Gly	Ala	Gly	Glu	Gln	Gln	Gln	Gln	Ala	Gly	Ser	Gly	Ala			
			35				40					45						
Pro	His	Thr	Pro	Gln	Thr	Pro	Gly	Gln	Pro	Gly	Ala	Pro	Ala	Thr	Pro			
			50			55				60								
Gly	Thr	Ala	Gly	Asp	Lys	Gly	Gln	Gly	Pro	Pro	Gly	Ser	Gly	Gln	Ser			
65					70				75					80				
Gln	Gln	His	Ile	Glu	Cys	Val	Val	Cys	Gly	Asp	Lys	Ser	Ser	Gly	Lys			
			85					90						95				
His	Tyr	Gly	Gln	Phe	Thr	Cys	Glu	Gly	Cys	Lys	Ser	Phe	Phe	Lys	Arg			
			100				105					110						
Ser	Val	Arg	Arg	Asn	Leu	Thr	Tyr	Thr	Cys	Arg	Ala	Asn	Arg	Asn	Cys			

115		120		125
Pro Ile Asp Gln His His Arg Asn Gln Cys Gln Tyr Cys Arg Leu Lys				
130		135		140
Lys Cys Leu Lys Val Gly Met Arg Arg Glu Ala Val Gln Arg Gly Arg				
145		150		155
Met Pro Pro Thr Gln Pro Asn Pro Gly Gln Tyr Ala Leu Thr Asn Gly				
	165		170	175
Asp Pro Leu Asn Gly His Cys Tyr Leu Ser Gly Tyr Ile Ser Leu Leu				
	180		185	190
Leu Arg Ala Glu Pro Tyr Pro Thr Ser Arg Tyr Gly Ser Gln Cys Met				
	195		200	205
Gln Pro Asn Asn Ile Met Gly Ile Glu Asn Ile Cys Glu Leu Ala Ala				
	210		215	220
Arg Leu Leu Phe Ser Ala Val Glu Trp Ala Arg Asn Ile Pro Phe Phe				
225		230		235
Pro Asp Leu Gln Ile Thr Asp Gln Val Ser Leu Leu Arg Leu Thr Trp				
	245		250	255
Ser Glu Leu Phe Val Leu Asn Ala Ala Gln Cys Ser Met Pro Leu His				
	260		265	270
Val Ala Pro Leu Leu Ala Ala Ala Gly Leu His Ala Ser Pro Met Ser				
	275		280	285
Ala Asp Arg Val Val Ala Phe Met Asp His Ile Arg Ile Phe Gln Glu				
	290		295	300
Gln Val Glu Lys Leu Lys Ala Leu His Val Asp Ser Ala Glu Tyr Ser				
305		310		315
Cys Leu Lys Ala Ile Val Leu Phe Thr Ser Asp Ala Cys Gly Leu Ser				
	325		330	335
Asp Ala Ala His Ile Glu Ser Leu Gln Glu Lys Ser Gln Cys Ala Leu				
	340		345	350
Glu Glu Tyr Val Arg Ser Gln Tyr Pro Asn Gln Pro Ser Arg Phe Gly				
	355		360	365
Lys Leu Leu Leu Arg Leu Pro Ser Leu Arg Thr Val Ser Ser Ser Val				
	370		375	380
Ile Glu Gln Leu Phe Phe Val Arg Leu Val Gly Lys Thr Pro Ile Glu				
385		390		395
Thr Leu Ile Arg Asp Met Leu Leu Ser Gly Ser Ser Phe Asn Trp Pro				
	405		410	415
Tyr Met Ser Ile Gln Cys Ser				
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Met Ile Trp Tyr Ile Leu Ile Ile Gly Ile Leu Leu Pro Gln Ser Leu
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Ala His Pro Gly Phe Phe Thr Ser Ile Gly Gln Met Thr Asp Leu Ile
          20           25           30

His Thr Glu Lys Asp Leu Val Thr Ser Leu Lys Asp Tyr Ile Lys Ala
35           40           45

Glu Glu Asp Lys Leu Glu Gln Ile Lys Lys Trp Ala Glu Lys Leu Asp
50           55           60

Arg Leu Thr Ser Thr Ala Thr Lys Asp Pro Glu Gly Phe Val Gly His
65           70           75           80

Pro Val Asn Ala Phe Lys Leu Met Lys Arg Leu Asn Thr Glu Trp Ser
          85           90           95

Glu Leu Glu Asn Leu Val Leu Lys Asp Met Ser Asp Gly Phe Ile Ser
100          105          110

Asn Leu Thr Ile Gln Arg Pro Val Leu Ser Asn Asp Glu Asp Gln Val
115          120          125

Gly Ala Ala Lys Ala Leu Leu Arg Leu Gln Asp Thr Tyr Asn Leu Asp
130          135          140

Thr Asp Thr Ile Ser Lys Gly Asn Leu Pro Gly Val Lys His Lys Ser
145          150          155          160

Phe Leu Thr Ala Glu Asp Cys Phe Glu Leu Gly Lys Val Ala Tyr Thr
165          170          175

Glu Ala Asp Tyr Tyr His Thr Glu Leu Trp Met Glu Gln Ala Leu Arg
180          185          190

Gln Leu Asp Glu Gly Glu Ile Ser Thr Ile Asp Lys Val Ser Val Leu
195          200          205

Asp Tyr Leu Ser Tyr Ala Val Tyr Gln Gln Gly Asp Leu Asp Lys Ala
210          215          220

Leu Leu Leu Thr Lys Lys Leu Leu Glu Leu Asp Pro Glu His Gln Arg
225          230          235          240

Ala Asn Gly Asn Leu Lys Tyr Phe Glu Tyr Ile Met Ala Lys Glu Lys
245          250          255

Asp Val Asn Lys Ser Ala Ser Asp Asp Gln Ser Asp Gln Lys Thr Thr
260          265          270

Pro Lys Lys Lys Gly Val Ala Val Asp Tyr Leu Pro Glu Arg Gln Lys
275          280          285
    
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Gly Thr Trp His Ser Met Ala Met Ala Thr Asn Asn Ile Ser Leu Met
20 25 30

Ala	Thr	Leu	Lys	Ala	Pro	Leu	Arg	Val	His	Ile	Thr	Ser	Leu	Leu	Pro
		35					40					45			
Thr		Glu	Asp	Asn	Leu	Glu	Ile	Val	Leu	His	Arg	Trp	Glu	Asn	Asn
		50				55					60				
Ser	Cys	Val	Glu	Lys	Lys	Val	Leu	Gly	Glu	Lys	Thr	Gly	Asn	Pro	Lys
					70					75					80
Lys	Phe	Lys	Ile	Asn	Tyr	Thr	Val	Ala	Asn	Glu	Ala	Thr	Leu	Leu	Asp
				85					90					95	
Thr	Asp	Tyr	Asp	Asn	Phe	Leu	Phe	Leu	Cys	Leu	Gln	Asp	Thr	Thr	Thr
			100					105					110		
Pro	Ile	Gln	Ser	Met	Met	Cys	Gln	Tyr	Leu	Ala	Arg	Val	Leu	Val	Glu
							120					125			
Asp	Asp	Glu	Ile	Met	Gln	Gly	Phe	Ile	Arg	Ala	Phe	Arg	Pro	Leu	Pro
						135					140				
Arg	His	Leu	Trp	Tyr	Leu	Leu	Asp	Leu	Lys	Gln	Met	Glu	Glu	Pro	Cys
					150					155					160
Arg Phe															
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Met	Leu	Pro	Ala	Ala	Thr	Ala	Ser	Leu	Leu	Gly	Pro	Leu	Leu	Thr	Ala
1				5					10					15	
Cys	Ala	Leu	Leu	Pro	Phe	Ala	Gln	Gly	Gln	Thr	Pro	Asn	Tyr	Thr	Arg
			20					25					30		
Pro	Val	Phe	Leu	Cys	Gly	Gly	Asp	Val	Lys	Gly	Glu	Ser	Gly	Tyr	Val
			35				40					45			
Ala	Ser	Glu	Gly	Phe	Pro	Asn	Ser	Tyr	Pro	Pro	Asn	Lys	Glu	Cys	Ile
						55					60				
Trp	Thr	Ile	Thr	Val	Pro	Glu	Gly	Gln	Thr	Val	Ser	Leu	Ser	Phe	Arg
65					70					75					80
Val	Phe	Asp	Leu	Glu	Leu	His	Pro	Ala	Cys	Arg	Tyr	Asp	Ala	Leu	Glu
				85				90						95	
Val	Phe	Ala	Gly	Ser	Gly	Thr	Ser	Gly	Gln	Arg	Leu	Gly	Arg	Phe	Cys
			100					105					110		
Gly	Thr	Phe	Arg	Pro	Ala	Pro	Leu	Val	Ala	Pro	Gly	Asn	Gln	Val	Thr
			115				120								

130	135	140
Trp Tyr Ser Gly Arg Ala Thr Ser Gly Ser Glu His Gln Phe Cys Gly		
145	150	155 160
Gly Arg Leu Glu Lys Ala Gln Gly Thr Leu Thr Thr Pro Asn Trp Pro		
	165	170 175
Glu Ser Asp Tyr Pro Pro Gly Ile Ser Cys Ser Trp His Ile Ala		
	180	185 190
Pro Pro Asp Gln Val Ile Ala Leu Thr Phe Glu Lys Phe Asp Leu Glu		
	195	200 205
Pro Asp Thr Tyr Cys Arg Tyr Asp Ser Val Ser Val Phe Asn Gly Ala		
	210	215 220
Val Ser Asp Asp Ser Arg Arg Leu Gly Lys Phe Cys Gly Asp Ala Val		
	225	230 235 240
Pro Gly Ser Ile Ser Ser Glu Gly Asn Glu Leu Leu Val Gln Phe Val		
	245	250 255
Ser Asp Leu Ser Val Thr Ala Asp Gly Phe Ser Ala Ser Tyr Lys Thr		
	260	265 270
Leu Pro Arg Gly Thr Ala Lys Glu Gly Gln Gly Pro Gly Pro Lys Arg		
	275	280 285
Gly Thr Glu Pro Lys Val Lys Leu Pro Pro Lys Ser Gln Pro Pro Glu		
	290	295 300
Lys Thr Glu Glu Ser Pro Ser Ala Pro Asp Ala Pro Thr Cys Pro Lys		
	305	310 315 320
Gln Cys Arg Arg Thr Gly Thr Leu Gln Ser Asn Phe Cys Ala Ser Ser		
	325	330 335
Leu Val Val Thr Ala Thr Val Lys Ser Met Val Arg Glu Pro Gly Glu		
	340	345 350
Gly Leu Ala Val Thr Val Ser Leu Ile Gly Ala Tyr Lys Thr Gly Gly		
	355	360 365
Leu Asp Leu Pro Thr Pro Pro Thr Gly Ala Ser Leu Lys Phe Tyr Val		
	370	375 380
Pro Cys Lys Gln Cys Pro Pro Met Lys Lys Gly Val Ser Tyr Leu Leu		
	385	390 395 400
Met Gly Gln Val Glu Glu Asn Arg Gly Pro Val Leu Pro Pro Glu Ser		
	405	410 415
Phe Val Val Leu His Arg Pro Asn Gln Asp Gln Ile Leu Thr Asn Leu		
	420	425 430
Ser Lys Arg Lys Cys Pro Ser Gln Pro Val Arg Ala Ala Ala Ser Gln		
	435	440 445
Asp		

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Gly Leu Ser Leu Ile Leu Cys Gln Leu Ser Leu Pro Ser Ile Leu Pro
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Asn Glu Asn Glu Lys Val Val Gln Leu Asn Ser Ser Phe Ser Leu Arg
35 40 45

Cys Phe Gly Glu Ser Glu Val Ser Trp Gln Tyr Pro Met Ser Glu Glu
50 55 60

Glu Ser Ser Asp Val Glu Ile Arg Asn Glu Glu Asn Asn Ser Gly Leu
65 70 75 80

Phe Val Thr Val Leu Glu Val Ser Ser Ala Ser Ala Ala His Thr Gly
85 90 95

Leu Tyr Thr Cys Tyr Tyr Asn His Thr Gln Thr Glu Glu Asn Glu Leu
100 105 110

Glu Gly Arg His Ile Tyr Ile Tyr Val Pro Asp Pro Asp Val Ala Phe
115 120 125

Val Pro Leu Gly Met Thr Asp Tyr Leu Val Ile Val Glu Asp Asp Asp
130 135 140

Ser Ala Ile Ile Pro Cys Arg Thr Thr Asp Pro Glu Thr Pro Val Thr
145 150 155 160

Leu His Asn Ser Glu Gly Val Val Pro Ala Ser Tyr Asp Ser Arg Gln
165 170 175

Gly Phe Asn Gly Thr Phe Thr Val Gly Pro Tyr Ile Cys Glu Ala Thr
180 185 190

Val Lys Gly Lys Lys Phe Gln Thr Ile Pro Phe Asn Val Tyr Ala Leu
195 200 205

Lys Ala Thr Ser Glu Leu Asp Leu Glu Met Glu Ala Leu Lys Thr Val
210 215 220

Tyr Lys Ser Gly Glu Thr Ile Val Val Thr Cys Ala Val Phe Asn Asn
225 230 235 240

Glu Val Val Asp Leu Gln Trp Thr Tyr Pro Gly Glu Val Lys Gly Lys
245 250 255

Gly Ile Thr Met Leu Glu Glu Ile Lys Val Pro Ser Ile Lys Leu Val
260 265 270

Tyr Thr Leu Thr Val Pro Glu Ala Thr Val Lys Asp Ser Gly Asp Tyr
 275 280 285
 Glu Cys Ala Ala Arg Gln Ala Thr Arg Glu Val Lys Glu Met Lys Lys
 290 295 300
 Val Thr Ile Ser Val His Glu Lys Gly Phe Ile Glu Ile Lys Pro Thr
 305 310 315 320
 Phe Ser Gln Leu Glu Ala Val Asn Leu His Glu Val Lys His Phe Val
 325 330 335
 Val Glu Val Arg Ala Tyr Pro Pro Pro Arg Ile Ser Trp Leu Lys Asn
 340 345 350
 Asn Leu Thr Leu Ile Glu Asn Leu Thr Glu Ile Thr Thr Asp Val Glu
 355 360 365
 Lys Ile Gln Glu Ile Arg Tyr Arg Ser Lys Leu Lys Leu Ile Arg Ala
 370 375 380
 Lys Glu Glu Asp Ser Gly His Tyr Thr Ile Val Ala Gln Asn Glu Asp
 385 390 395 400
 Ala Val Lys Ser Tyr Thr Phe Glu Leu Leu Thr Gln Val Pro Ser Ser
 405 410 415
 Ile Leu Asp Leu Val Asp Asp His His Gly Ser Thr Gly Gly Gln Thr
 420 425 430
 Val Arg Cys Thr Ala Glu Gly Thr Pro Leu Pro Asp Ile Glu Trp Met
 435 440 445
 Ile Cys Lys Asp Ile Lys Lys Cys Asn Asn Glu Thr Ser Trp Thr Ile
 450 455 460
 Leu Ala Asn Asn Val Ser Asn Ile Ile Thr Glu Ile His Ser Arg Asp
 465 470 475 480
 Arg Ser Thr Val Glu Gly Arg Val Thr Phe Ala Lys Val Glu Glu Thr
 485 490 495
 Ile Ala Val Arg Cys Leu Ala Lys Asn Leu Leu Gly Ala Glu Asn Arg
 500 505 510
 Glu Leu Lys Leu Val Ala Pro Thr Leu Arg Ser Glu Leu Thr Val Ala
 515 520 525
 Ala Ala Val Leu Val Leu Leu Val Ile Val Ile Ile Ser Leu Ile Val
 530 535 540
 Leu Val Val Ile Trp Lys Gln Lys Pro Arg Tyr Glu Ile Arg Trp Arg
 545 550 555 560
 Val Ile Glu Ser Ile Ser Pro Asp Gly His Glu Tyr Ile Tyr Val Asp
 565 570 575
 Pro Met Gln Leu Pro Tyr Asp Ser Arg Trp Glu Phe Pro Arg Asp Gly
 580 585 590

Leu Val Leu Gly Arg Val Leu Gly Ser Gly Ala Phe Gly Lys Val Val
 595 600 605
 Glu Gly Thr Ala Tyr Gly Leu Ser Arg Ser Gln Pro Val Met Lys Val
 610 615 620
 Ala Val Lys Met Leu Lys Pro Thr Ala Arg Ser Ser Glu Lys Gln Ala
 625 630 635 640
 Leu Met Ser Glu Leu Lys Ile Met Thr His Leu Gly Pro His Leu Asn
 645 650 655
 Ile Val Asn Leu Leu Gly Ala Cys Thr Lys Ser Gly Pro Ile Tyr Ile
 660 665 670
 Ile Thr Glu Tyr Cys Phe Tyr Gly Asp Leu Val Asn Tyr Leu His Lys
 675 680 685
 Asn Arg Asp Ser Phe Leu Ser His His Pro Glu Lys Pro Lys Lys Glu
 690 695 700
 Leu Asp Ile Phe Gly Leu Asn Pro Ala Asp Glu Ser Thr Arg Ser Tyr
 705 710 715 720
 Val Ile Leu Ser Phe Glu Asn Asn Gly Asp Tyr Met Asp Met Lys Gln
 725 730 735
 Ala Asp Thr Thr Gln Tyr Val Pro Met Leu Glu Arg Lys Glu Val Ser
 740 745 750
 Lys Tyr Ser Asp Ile Gln Arg Ser Leu Tyr Asp Arg Pro Ala Ser Tyr
 755 760 765
 Lys Lys Lys Ser Met Leu Asp Ser Glu Val Lys Asn Leu Leu Ser Asp
 770 775 780
 Asp Asn Ser Glu Gly Leu Thr Leu Leu Asp Leu Leu Ser Phe Thr Tyr
 785 790 795 800
 Gln Val Ala Arg Gly Met Glu Phe Leu Ala Ser Lys Asn Cys Val His
 805 810 815
 Arg Asp Leu Ala Ala Arg Asn Val Leu Leu Ala Gln Gly Lys Ile Val
 820 825 830
 Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Met His Asp Ser Asn
 835 840 845
 Tyr Val Ser Lys Gly Ser Thr Phe Leu Pro Val Lys Trp Met Ala Pro
 850 855 860
 Glu Ser Ile Phe Asp Asn Leu Tyr Thr Thr Leu Ser Asp Val Trp Ser
 865 870 875 880
 Tyr Gly Ile Leu Leu Trp Glu Ile Phe Ser Leu Gly Gly Thr Pro Tyr
 885 890 895
 Pro Gly Met Met Val Asp Ser Thr Phe Tyr Asn Lys Ile Lys Ser Gly
 900 905 910

Tyr Arg Met Ala Lys Pro Asp His Ala Thr Ser Glu Val Tyr Glu Ile
 915 920 925
 Met Val Lys Cys Trp Asn Ser Glu Pro Glu Lys Arg Pro Ser Phe Tyr
 930 935 940
 His Leu Ser Glu Ile Val Glu Asn Leu Leu Pro Gly Gln Tyr Lys Lys
 945 950 955 960
 Ser Tyr Glu Lys Ile His Leu Asp Phe Leu Lys Ser Asp His Pro Ala
 965 970 975
 Val Ala Arg Met Arg Val Asp Ser Asp Asn Ala Tyr Ile Gly Val Thr
 980 985 990
 Tyr Lys Asn Glu Glu Asp Lys Leu Lys Asp Trp Glu Gly Gly Leu Asp
 995 1000 1005
 Glu Gln Arg Leu Ser Ala Asp Ser Gly Tyr Ile Ile Pro Leu Pro
 1010 1015 1020
 Asp Ile Asp Pro Val Pro Glu Glu Glu Asp Leu Gly Lys Arg Asn
 1025 1030
 Arg His Ser Ser Gln Thr Ser Glu Glu Ser Ala Ile Glu Thr Gly
 1040 1045 1050
 Ser Ser Ser Ser Thr Phe Ile Lys Arg Glu Asp Glu Thr Ile Glu
 1055 1060 1065
 Asp Ile Asp Met Met Asp Asp Ile Gly Ile Asp Ser Ser Asp Leu
 1070 1075 1080
 Val Glu Asp Ser Phe Leu
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 Gln Lys Ile Ala Asp Arg Leu Gly Leu Glu Leu Gly Lys Val Val Thr
 20 25 30
 Lys Lys Phe Ser Asn Gln Glu Thr Cys Val Glu Ile Gly Glu Ser Val
 35 40 45
 Arg Gly Glu Asp Val Tyr Ile Val Gln Ser Gly Cys Gly Glu Ile Asn
 50 55 60
 Asp Asn Leu Met Glu Leu Leu Ile Met Ile Asn Ala Cys Lys Ile Ala
 65 70 75 80
 Ser Ala Ser Arg Val Thr Ala Val Ile Pro Cys Phe Pro Tyr Ala Arg
 85 90 95

Gln Asp Lys Lys Asp Lys Ser Arg Ala Pro Ile Ser Ala Lys Leu Val
100 105 110

Ala Asn Met Leu Ser Val Ala Gly Ala Asp His Ile Ile Thr Met Asp
115 120 125

Leu His Ala Ser Gln Ile Gln Gly Phe Phe Asp Ile Pro Val Asp Asn
130 135 140

Leu Tyr Ala Glu Pro Ala Val Leu Lys Trp Ile Arg Glu Asn Ile Ser
145 150 155 160

Glu Trp Arg Asn Cys Thr Ile Val Ser Pro Asp Ala Gly Gly Ala Lys
165 170 175

Arg Val Thr Ser Ile Ala Asp Arg Leu Asn Val Asp Phe Ala Leu Ile
180 185 190

His Lys Glu Arg Lys Lys Ala Asn Glu Val Asp Arg Met Val Leu Val
195 200 205

Gly Asp Val Lys Asp Arg Val Ala Ile Leu Val Asp Asp Met Ala Asp
210 215 220

Thr Cys Gly Thr Ile Cys His Ala Ala Asp Lys Leu Leu Ser Ala Gly
225 230 235 240

Ala Thr Arg Val Tyr Ala Ile Leu Thr His Gly Ile Phe Ser Gly Pro
245 250 255

Ala Ile Ser Arg Ile Asn Asn Ala Cys Phe Glu Ala Val Val Val Thr
260 265 270

Asn Thr Ile Pro Gln Glu Asp Lys Met Lys His Cys Ser Lys Ile Gln
275 280 285

Val Ile Asp Ile Ser Met Ile Leu Ala Glu Ala Ile Arg Arg Thr His
290 295 300

Asn Gly Glu Ser Val Ser Tyr Leu Phe Ser His Val Pro Leu
305 310 315

<210> 92
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<213> Homo sapiens

<400> 92

Met Pro Asn Ile Val Leu Phe Ser Gly Ser Ser His Gln Asp Leu Ser
1 5 10 15

Gln Arg Val Ala Asp Arg Leu Gly Leu Glu Leu Gly Lys Val Val Thr
20 25 30

Lys Lys Phe Ser Asn Gln Glu Thr Ser Val Glu Ile Gly Glu Ser Val
35 40 45

Arg Gly Glu Asp Val Tyr Ile Ile Gln Ser Gly Cys Gly Glu Ile Asn

50

55

60

Asp Asn Leu Met Glu Leu Leu Ile Met Ile Asn Ala Cys Lys Ile Ala
65 70 75 80

Ser Ser Ser Arg Val Thr Ala Val Ile Pro Cys Phe Pro Tyr Ala Arg
85 90 95

Gln Asp Lys Lys Asp Lys Ser Arg Ala Pro Ile Ser Ala Lys Leu Val
100 105 110

Ala Asn Met Leu Ser Val Ala Gly Ala Asp His Ile Ile Thr Met Asp
115 120 125

Leu His Ala Ser Gln Ile Gln Gly Phe Phe Asp Ile Pro Val Asp Asn
130 135 140

Leu Tyr Ala Glu Pro Ala Val Leu Gln Trp Ile Arg Glu Asn Ile Ala
145 150 155 160

Glu Trp Lys Asn Cys Ile Ile Val Ser Pro Asp Ala Gly Gly Ala Lys
165 170 175

Arg Val Thr Ser Ile Ala Asp Arg Leu Asn Val Glu Phe Ala Leu Ile
180 185 190

His Lys Glu Arg Lys Lys Ala Asn Glu Val Asp Arg Met Val Leu Val
195 200 205

Gly Asp Val Lys Asp Arg Val Ala Ile Leu Val Asp Asp Met Ala Asp
210 215 220

Thr Cys Gly Thr Ile Cys His Ala Ala Asp Lys Leu Leu Ser Ala Gly
225 230 235 240

Ala Thr Lys Val Tyr Ala Ile Leu Thr His Gly Ile Phe Ser Gly Pro
245 250 255

Ala Ile Ser Arg Ile Asn Asn Ala Ala Phe Glu Ala Val Val Val Thr
260 265 270

Asn Thr Ile Pro Gln Glu Asp Lys Met Lys His Cys Thr Lys Ile Gln
275 280 285

Val Ile Asp Ile Ser Met Ile Leu Ala Glu Ala Ile Arg Arg Thr His
290 295 300

Asn Gly Glu Ser Val Ser Tyr Leu Phe Ser His Val Pro Leu
305 310 315

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Met Ala Ala Ala Ala Ala Gly Glu Ala Arg Arg Val Leu Val Tyr
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Gly Gly Arg Gly Ala Leu Gly Ser Arg Cys Val Gln Ala Phe Arg Ala
 20 25 30

Arg Asn Trp Trp Val Ala Ser Val Asp Val Val Glu Asn Glu Glu Ala
 35 40 45

Ser Ala Thr Ile Ile Val Lys Met Thr Asp Ser Phe Thr Glu Gln Ala
 50 55 60

Asp Gln Val Thr Ala Glu Val Gly Lys Leu Leu Gly Glu Glu Lys Val
 65 70 75 80

Asp Ala Ile Leu Cys Val Ala Gly Gly Trp Ala Gly Gly Asn Ala Lys
 85 90 95

Ser Lys Ser Leu Phe Lys Asn Cys Asp Leu Met Trp Lys Gln Ser Ile
 100 105 110

Trp Thr Ser Thr Ile Ser Ser His Leu Ala Thr Lys His Leu Lys Glu
 115 120 125

Gly Gly Leu Leu Thr Leu Ala Gly Ala Lys Ala Ala Leu Asp Gly Thr
 130 135 140

Pro Gly Met Ile Gly Tyr Gly Met Ala Lys Gly Ala Val His Gln Leu
 145 150 155 160

Cys Gln Ser Leu Ala Gly Lys Asn Ser Gly Met Pro Pro Gly Ala Ala
 165 170 175

Ala Ile Ala Val Leu Pro Val Thr Leu Asp Thr Pro Met Asn Arg Lys
 180 185 190

Ser Met Pro Glu Ala Asp Phe Ser Ser Trp Thr Pro Leu Glu Phe Leu
 195 200 205

Val Glu Thr Phe His Asp Trp Ile Thr Gly Lys Asn Arg Pro Ser Ser
 210 215 220

Gly Ser Leu Ile Gln Val Val Thr Thr Glu Gly Arg Thr Glu Leu Thr
 225 230 235 240

Pro Ala Tyr Phe

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Met Gly Thr Pro Gln Lys Asp Val Ile Ile Lys Ser Asp Ala Pro Asp
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Thr Leu Leu Leu Glu Lys His Ala Asp Tyr Ile Ala Ser Tyr Gly Ser
 20 25 30

Lys Lys Asp Asp Tyr Glu Tyr Cys Met Ser Glu Tyr Leu Arg Met Ser
 35 40 45


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Met Asn Ala Lys Val Val Val Val Leu Val Leu Val Leu Thr Ala Leu
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Cys Leu Ser Asp Gly Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys
20 25 30

Arg Phe Phe Glu Ser His Val Ala Arg Ala Asn Val Lys His Leu Lys
35 40 45

Ile Leu Asn Thr Pro Asn Cys Ala Leu Gln Ile Val Ala Arg Leu Lys
50 55 60

Asn Asn Asn Arg Gln Val Cys Ile Asp Pro Lys Leu Lys Trp Ile Gln
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Glu Tyr Leu Glu Lys Ala Leu Asn Lys Arg Phe Lys Met
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<222> (300)..(300)

<223> Xaa = any amino acid

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Met Trp Arg Ser Leu Gly Leu Ala Leu Ala Leu Cys Leu Leu Pro Ser
 1 5 10 15

Gly Gly Thr Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro
 20 25 30

Ala Trp Ser Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser
 35 40 45

Val Thr Val Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Ile
 50 55 60

Glu Ala Ser Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly
 65 70 75 80

Tyr Ser Asn Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser
 85 90 95

Arg Leu Lys Tyr Thr His Leu Lys Asn Lys Val Ser Glu His Ile Pro
 100 105 110

Val Tyr Gln Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn
 115 120 125

Gly Ser Lys Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val
 130 135 140

Tyr His Leu Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu
 145 150 155 160

Glu Ala Ile Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser
 165 170 175

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Leu Thr Thr Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala
 180 185 190
 Thr Val Asp Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu
 195 200 205
 His His His Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser
 210 215 220
 Glu Asn Gln Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro
 225 230 235 240
 Pro Gly Leu His His His His Lys His Lys Gly Gln His Arg Gln Gly
 245 250 255
 His Pro Glu Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu
 260 265 270
 Gln Lys Lys Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys
 275 280 285
 Leu Pro Thr Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys
 290 295 300
 Arg His Leu Ile Phe Glu Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys
 305 310 315 320
 Lys Glu Asn Leu Pro Ser Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu
 325 330 335
 Glu Asn Ile Thr Glu Ser Cys Gln Xaa Arg Leu Pro Pro Ala Ala Xaa
 340 345 350
 Gln Ile Ser Gln Gln Leu Ile Pro Thr Glu Ala Ser Ala Ser Xaa Arg
 355 360 365
 Xaa Lys Asn Gln Ala Lys Lys Xaa Glu Xaa Pro Ser Asn
 370 375 380
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 <211> 220
 <212> PRT
 <213> Homo sapiens
 <400> 97
 Met Ala Ile Leu Phe Ala Val Val Ala Arg Gly Thr Thr Ile Leu Ala
 1 5 10 15
 Lys His Ala Trp Cys Gly Gly Asn Phe Leu Glu Val Thr Glu Gln Ile
 20 25 30
 Leu Ala Lys Ile Pro Ser Glu Asn Asn Lys Leu Thr Tyr Ser His Gly
 35 40 45
 Asn Tyr Leu Phe His Tyr Ile Cys Gln Asp Arg Ile Val Tyr Leu Cys
 50 55 60
 Ile Thr Asp Asp Asp Phe Glu Arg Ser Arg Ala Phe Asn Phe Leu Asn
 65 70 75 80

Glu Ile Lys Lys Arg Phe Gln Thr Thr Tyr Gly Ser Arg Ala Gln Thr
85 90

Ala Leu Pro Tyr Ala Met Asn Ser Glu Phe Ser Ser Val Leu Ala Ala
100 105 110

Gln Leu Lys His His Ser Glu Asn Lys Gly Leu Asp Lys Val Met Glu
115 120 125

Thr Gln Ala Gln Val Asp Glu Leu Lys Gly Ile Met Val Arg Asn Ile
130 135 140

Asp Leu Val Ala Gln Arg Gly Glu Arg Leu Glu Leu Leu Ile Asp Lys
145 150 155 160

Thr Glu Asn Leu Val Asp Ser Ser Val Thr Phe Lys Thr Thr Ser Arg
165 170 175

Asn Leu Ala Arg Ala Met Cys Met Lys Asn Leu Lys Leu Thr Ile Ile
180 185 190

Ile Ile Ile Val Ser Ile Val Phe Ile Tyr Ile Ile Val Ser Pro Leu
195 200 205

Cys Gly Gly Phe Thr Trp Pro Ser Cys Val Lys Lys
210 215 220

<210> 98
<211> 1736
<212> PRT
<213> Homo sapiens

<400> 98

Met Glu Glu Thr Ala Ile Trp Glu Gln His Thr Val Thr Leu His Arg
1 5 10 15

Ala Pro Gly Phe Gly Phe Gly Ile Ala Ile Ser Gly Gly Arg Asp Asn
20 25 30

Pro His Phe Gln Ser Gly Glu Thr Ser Ile Val Ile Ser Asp Val Leu
35 40 45

Lys Gly Gly Pro Ala Glu Gly Gln Leu Gln Glu Asn Asp Arg Val Ala
50 55 60

Met Val Asn Gly Val Ser Met Asp Asn Val Glu His Ala Phe Ala Val
65 70 75 80

Gln Gln Leu Arg Lys Ser Gly Lys Asn Ala Lys Ile Thr Ile Arg Arg
85 90 95

Lys Lys Lys Val Gln Ile Pro Val Ser Arg Pro Asp Pro Glu Pro Val
100 105 110

Ser Asp Asn Glu Glu Asp Ser Tyr Asp Glu Glu Ile His Asp Pro Arg
115 120 125

Ser Gly Arg Ser Gly Val Val Asn Arg Arg Ser Glu Lys Ile Trp Pro

130				135				140							
Arg	Asp	Arg	Ser	Ala	Ser	Arg	Glu	Arg	Ser	Leu	Ser	Pro	Arg	Ser	Asp
145				150						155					160
Arg	Arg	Ser	Val	Ala	Ser	Ser	Gln	Pro	Ala	Lys	Pro	Thr	Lys	Val	Thr
				165						170					175
Leu	Val	Lys	Ser	Arg	Lys	Asn	Glu	Glu	Tyr	Gly	Leu	Arg	Leu	Ala	Ser
				180				185					190		
His	Ile	Phe	Val	Lys	Glu	Ile	Ser	Gln	Asp	Ser	Leu	Ala	Ala	Arg	Asp
				195				200				205			
Gly	Asn	Ile	Gln	Glu	Gly	Asp	Val	Val	Leu	Lys	Ile	Asn	Gly	Thr	Val
				210				215				220			
Thr	Glu	Asn	Met	Ser	Leu	Thr	Asp	Ala	Lys	Thr	Leu	Ile	Glu	Arg	Ser
				225				230				235			240
Lys	Gly	Lys	Leu	Lys	Met	Val	Val	Gln	Arg	Asp	Glu	Arg	Ala	Thr	Leu
				245					250				255		
Leu	Asn	Val	Pro	Asp	Leu	Ser	Asp	Ser	Ile	His	Ser	Ala	Asn	Ala	Ser
				260				265					270		
Glu	Arg	Asp	Asp	Ile	Ser	Glu	Ile	Gln	Ser	Leu	Ala	Ser	Asp	His	Ser
				275				280				285			
Gly	Arg	Ser	His	Asp	Arg	Pro	Pro	Arg	Arg	Ser	Arg	Ser	Arg	Ser	Pro
				290				295				300			
Asp	Gln	Arg	Ser	Glu	Pro	Ser	Asp	His	Ser	Arg	His	Ser	Pro	Gln	Gln
				305				310				315			320
Pro	Ser	Asn	Gly	Ser	Leu	Arg	Ser	Arg	Asp	Glu	Glu	Arg	Ile	Ser	Lys
				325					330				335		
Pro	Gly	Ala	Val	Ser	Thr	Pro	Val	Lys	His	Ala	Asp	Asp	His	Thr	Pro
				340				345					350		
Lys	Thr	Val	Glu	Glu	Val	Thr	Val	Glu	Arg	Asn	Glu	Lys	Gln	Thr	Pro
				355				360				365			
Ser	Leu	Pro	Glu	Pro	Lys	Pro	Val	Tyr	Ala	Gln	Val	Gly	Asn	Gln	Met
				370				375				380			
Trp	Ile	Tyr	Leu	Ser	Val	His	Leu	Met	Val	Ser	Tyr	Leu	Ile	Gln	Leu
				385				390				395			400
Met	Lys	Met	Gly	Phe	Leu	Arg	Pro	Ser	Met	Lys	Leu	Val	Lys	Phe	Arg
				405					410					415	
Lys	Gly	Asp	Ser	Val	Gly	Leu	Arg	Leu	Ala	Gly	Gly	Asn	Asp	Val	Gly
				420				425				430			
Ile	Phe	Val	Ala	Gly	Val	Leu	Glu	Asp	Ser	Pro	Ala	Ala	Lys	Glu	Gly
				435				440				445			
Leu	Glu	Glu	Gly	Asp	Gln	Ile	Leu	Arg	Val	Asn	Asn	Val	Asp	Phe	Thr

450	455	460
Asn Ile Ile Arg Glu Glu Ala Val Leu Phe Leu Leu Asp Leu Pro Lys 465 470 475 480		
Gly Glu Glu Val Thr Ile Leu Ala Gln Lys Lys Lys Asp Val Tyr Arg 485 490 495		
Arg Ile Val Glu Ser Asp Val Gly Asp Ser Phe Tyr Ile Arg Thr His 500 505 510		
Phe Glu Tyr Glu Lys Glu Ser Pro Tyr Gly Leu Ser Phe Asn Lys Gly 515 520 525		
Glu Val Phe Arg Ala Val Asp Thr Leu Tyr Asn Gly Lys Leu Gly Ser 530 535 540		
Trp Leu Ala Ile Arg Ile Gly Lys Asn His Lys Glu Val Glu Arg Gly 545 550 555 560		
Ile Ile Pro Asn Lys Asn Arg Ala Glu Gln Leu Ala Ser Val Gln Tyr 565 570 575		
Thr Leu Pro Lys Thr Ala Gly Gly Asp Arg Ala Asp Phe Trp Arg Phe 580 585 590		
Arg Gly Leu Arg Ser Ser Lys Arg Asn Leu Arg Lys Ser Arg Glu Asp 595 600 605		
Leu Ser Ala Gln Pro Val Gln Thr Lys Phe Pro Ala Tyr Glu Arg Val 610 615 620		
Val Leu Arg Glu Ala Gly Phe Leu Arg Pro Val Thr Ile Phe Gly Pro 625 630 635 640		
Ile Ala Asp Val Ala Arg Glu Lys Leu Ala Arg Glu Glu Pro Asp Ile 645 650 655		
Tyr Gln Ile Ala Lys Ser Glu Pro Arg Asp Ala Gly Thr Asp Gln Arg 660 665 670		
Ser Ser Gly Tyr Ile Arg Leu His Thr Ile Lys Gln Ile Ile Asp Gln 675 680 685		
Asp Lys His Ala Leu Leu Asp Val Thr Pro Asn Ala Val Asp Arg Leu 690 695 700		
Asn Tyr Ala Gln Trp Tyr Pro Ile Val Val Phe Leu Asn Pro Asp Ser 705 710 715 720		
Lys Gln Gly Val Lys Thr Met Arg Met Arg Leu Cys Pro Glu Ser Arg 725 730 735		
Lys Ser Ala Arg Lys Leu Tyr Glu Arg Ser His Lys Leu Ala Lys Asn 740 745 750		
Asn His His Leu Phe Thr Thr Thr Ile Asn Leu Asn Ser Met Asn Asp 755 760 765		
Gly Trp Tyr Gly Ala Leu Lys Glu Ala Val Gln Gln Gln Gln Asn Gln		

780

Leu	Val	Trp	Val	Ser	Glu	Gly	Lys	Ala	Asp	Gly	Ala	Thr	Ser	Asp	Asp	800
785					790				795							
Leu	Asp	Leu	His	Asp	Asp	Arg	Leu	Ser	Tyr	Leu	Ser	Ala	Pro	Gly	Ser	815
			805					810								
Glu	Tyr	Ser	Met	Tyr	Ser	Thr	Asp	Ser	Arg	His	Thr	Ser	Asp	Tyr	Glu	
			820					825					830			
Asp	Thr	Asp	Thr	Glu	Gly	Gly	Ala	Tyr	Thr	Asp	Gln	Glu	Leu	Asp	Glu	
		835					840					845				
Thr	Leu	Asn	Asp	Glu	Val	Gly	Thr	Pro	Pro	Glu	Ser	Ala	Ile	Thr	Arg	
		850				855					860					
Ser	Ser	Glu	Pro	Val	Arg	Glu	Asp	Ser	Ser	Gly	Met	His	His	Glu	Asn	
865					870					875					880	
Gln	Thr	Tyr	Pro	Pro	Tyr	Ser	Pro	Gln	Ala	Gln	Pro	Gln	Pro	Ile	His	
			885						890					895		
Arg	Ile	Asp	Ser	Pro	Gly	Phe	Lys	Pro	Ala	Ser	Gln	Gln	Lys	Ala	Glu	
		900						905					910			
Ala	Ser	Ser	Pro	Val	Pro	Tyr	Leu	Ser	Pro	Glu	Thr	Asn	Pro	Ala	Ser	
		915					920					925				
Ser	Thr	Ser	Ala	Val	Asn	His	Asn	Val	Asn	Leu	Thr	Asn	Val	Arg	Leu	
	930					935					940					
Glu	Glu	Pro	Thr	Pro	Ala	Pro	Ser	Thr	Ser	Tyr	Ser	Pro	Gln	Ala	Asp	
945					950					955					960	
Ser	Leu	Arg	Thr	Pro	Ser	Thr	Glu	Ala	Ala	His	Ile	Met	Leu	Arg	Asp	
			965						970					975		
Gln	Glu	Pro	Ser	Leu	Ser	Ser	His	Val	Asp	Pro	Thr	Lys	Val	Tyr	Arg	
		980						985					990			
Lys	Asp	Pro	Tyr	Pro	Glu	Glu	Met	Met	Arg	Gln	Asn	His	Val	Leu	Lys	
		995					1000					1005				
Gln	Pro	Ala	Val	Ser	His	Pro	Gly	His	Arg	Pro	Asp	Lys	Glu	Pro		
	1010					1015					1020					
Asn	Leu	Thr	Tyr	Glu	Pro	Gln	Leu	Pro	Tyr	Val	Glu	Lys	Gln	Ala		
	1025					1030					1035					
Ser	Arg	Asp	Leu	Glu	Gln	Pro	Thr	Tyr	Arg	Tyr	Glu	Ser	Ser	Ser		
	1040					1045					1050					
Tyr	Thr	Asp	Gln	Phe	Ser	Arg	Asn	Tyr	Glu	His	Arg	Leu	Arg	Tyr		
	1055					1060					1065					
Glu	Asp	Arg	Val	Pro	Met	Tyr	Glu	Glu	Gln	Trp	Ser	Tyr	Tyr	Asp		
	1070					1075					1080					
Asp	Lys	Gln	Pro	Tyr	Pro	Ser	Arg	Pro	Pro	Phe	Asp	Asn	Gln	His		

1085					1090					1095				
Ser	Gln	Asp	Leu	Asp	Ser	Arg	Gln	His	Pro	Glu	Glu	Ser	Ser	Glu
1100					1105					1110				
Arg	Gly	Tyr	Phe	Pro	Arg	Phe	Glu	Glu	Pro	Ala	Pro	Leu	Ser	Tyr
1115					1120					1125				
Asp	Ser	Arg	Pro	Arg	Tyr	Glu	Gln	Ala	Pro	Arg	Ala	Ser	Ala	Leu
1130					1135					1140				
Arg	His	Glu	Glu	Gln	Pro	Ala	Pro	Gly	Tyr	Asp	Thr	His	Gly	Arg
1145					1150					1155				
Leu	Arg	Pro	Glu	Ala	Gln	Pro	His	Pro	Ser	Ala	Gly	Pro	Lys	Pro
1160					1165					1170				
Ala	Glu	Ser	Lys	Gln	Tyr	Phe	Glu	Gln	Tyr	Ser	Arg	Ser	Tyr	Glu
1175					1180					1185				
Gln	Val	Pro	Pro	Gln	Gly	Phe	Thr	Ser	Arg	Ala	Gly	His	Phe	Glu
1190					1195					1200				
Pro	Leu	His	Gly	Ala	Ala	Ala	Val	Pro	Pro	Leu	Ile	Pro	Ser	Ser
1205					1210					1215				
Gln	His	Lys	Pro	Glu	Ala	Leu	Pro	Ser	Asn	Thr	Lys	Pro	Leu	Pro
1220					1225					1230				
Pro	Pro	Pro	Thr	Gln	Thr	Glu	Glu	Glu	Glu	Asp	Pro	Ala	Met	Lys
1235					1240					1245				
Pro	Gln	Ser	Val	Leu	Thr	Arg	Val	Lys	Met	Phe	Glu	Asn	Lys	Arg
1250					1255					1260				
Ser	Ala	Ser	Leu	Glu	Thr	Lys	Lys	Asp	Val	Asn	Asp	Thr	Gly	Ser
1265					1270					1275				
Phe	Lys	Pro	Pro	Glu	Val	Ala	Ser	Lys	Pro	Ser	Gly	Ala	Pro	Ile
1280					1285					1290				
Ile	Gly	Pro	Lys	Pro	Thr	Ser	Gln	Asn	Gln	Phe	Ser	Glu	His	Asp
1295					1300					1305				
Lys	Thr	Leu	Tyr	Arg	Ile	Pro	Glu	Pro	Gln	Lys	Pro	Gln	Leu	Lys
1310					1315					1320				
Pro	Pro	Glu	Asp	Ile	Val	Arg	Ser	Asn	His	Tyr	Asp	Pro	Glu	Glu
1325					1330					1335				
Asp	Glu	Glu	Tyr	Tyr	Arg	Lys	Gln	Leu	Ser	Tyr	Phe	Asp	Arg	Arg
1340					1345					1350				
Ser	Phe	Glu	Asn	Lys	Pro	Pro	Ala	His	Ile	Ala	Ala	Ser	His	Leu
1355					1360					1365				
Ser	Glu	Pro	Ala	Lys	Pro	Ala	His	Ser	Gln	Asn	Gln	Ser	Asn	Phe
1370					1375					1380				
Ser	Ser	Tyr	Ser	Ser	Lys	Gly	Lys	Pro	Pro	Glu	Ala	Asp	Gly	Val

1385	1390	1395
Asp Arg Ser Phe Gly Glu Lys	Arg Tyr Glu Pro Ile	Gln Ala Thr
1400	1405	1410
Pro Pro Pro Pro Pro Leu Pro	Ser Gln Tyr Ala Gln	Pro Ser Gln
1415	1420	1425
Pro Val Thr Ser Ala Ser Leu	His Ile His Ser Lys	Gly Ala His
1430	1435	1440
Gly Glu Gly Asn Ser Val Ser	Leu Asp Phe Gln Asn	Ser Leu Val
1445	1450	1455
Ser Lys Pro Asp Pro Pro Pro	Ser Gln Asn Lys Pro	Ala Thr Phe
1460	1465	1470
Arg Pro Pro Asn Arg Glu Asp	Thr Ala Gln Ala Ala	Phe Tyr Pro
1475	1480	1485
Gln Lys Ser Phe Pro Asp Lys	Ala Pro Val Asn Gly	Thr Glu Gln
1490	1495	1500
Thr Gln Lys Thr Val Thr Pro	Ala Tyr Asn Arg Phe	Thr Pro Lys
1505	1510	1515
Pro Tyr Thr Ser Ser Ala Arg	Pro Phe Glu Arg Lys	Phe Glu Ser
1520	1525	1530
Pro Lys Phe Asn His Asn Leu	Leu Pro Ser Glu Thr	Ala His Lys
1535	1540	1545
Pro Asp Leu Ser Ser Lys Thr	Pro Thr Ser Pro Lys	Thr Leu Val
1550	1555	1560
Lys Ser His Ser Leu Ala Gln	Pro Pro Glu Phe Asp	Ser Gly Val
1565	1570	1575
Glu Thr Phe Ser Ile His Ala	Glu Lys Pro Lys Tyr	Gln Ile Asn
1580	1585	1590
Asn Ile Ser Thr Val Pro Lys	Ala Ile Pro Val Ser	Pro Ser Ala
1595	1600	1605
Val Glu Glu Asp Glu Asp Glu	Asp Gly His Thr Val	Val Ala Thr
1610	1615	1620
Ala Arg Gly Ile Phe Asn Ser	Asn Gly Gly Val Leu	Ser Ser Ile
1625	1630	1635
Glu Thr Gly Val Ser Ile Ile	Ile Pro Gln Gly Ala	Ile Pro Glu
1640	1645	1650
Gly Val Glu Gln Glu Ile Tyr	Phe Lys Val Cys Arg	Asp Asn Ser
1655	1660	1665
Ile Leu Pro Pro Leu Asp Lys	Glu Lys Gly Glu Thr	Leu Leu Ser
1670	1675	1680
Pro Leu Val Met Cys Gly Pro	His Gly Leu Lys Phe	Leu Lys Pro

1685 1690 1695

Val Glu Leu Arg Leu Pro His Cys Asp Pro Lys Thr Trp Gln Asn
1700 1705 1710

Lys Cys Leu Pro Gly Asp Pro Asn Tyr Leu Val Gly Ala Asn Cys
1715 1720 1725

Val Ser Val Leu Ile Asp His Phe
1730 1735

<210> 99
<211> 93
<212> PRT
<213> Homo sapiens

<400> 99

Met Gln Arg Arg Gly Gln Pro Leu Glu Asn His Val Ala Leu Ile His
1 5 10 15

Trp Gln Ser Ala Gly Ile Pro Ala Ser Lys Val His Asn Tyr Cys Asn
20 25 30

Met Lys Lys Ser Arg Leu Gly Arg Ser Arg Ala Val Arg Ile Ser Gln
35 40 45

Pro Leu Leu Ser Pro Arg Arg Cys Pro Leu His Leu Thr Glu Arg Gly
50 55 60

Ala Gly Leu Leu Gln Pro Gln Pro Gln Gly Pro Val Arg Thr Pro Gly
65 70 75 80

Pro Pro Pro Gly Val Thr Gln Arg Pro Arg Thr Thr Glu
85 90

<210> 100
<211> 582
<212> PRT
<213> Homo sapiens

<400> 100

Asp Val Ser Arg Cys Ala His Arg Ala Arg Pro Gly Ala Ile Met Leu
1 5 10 15

Leu Leu Pro Ser Ala Ala Asp Gly Arg Gly Thr Ala Ile Thr His Ala
20 25 30

Leu Thr Ser Ala Ser Thr Leu Cys Gln Val Glu Pro Val Gly Arg Trp
35 40 45

Phe Glu Ala Phe Val Lys Arg Arg Asn Arg Asn Ala Ser Ala Ser Phe
50 55 60

Gln Glu Leu Glu Asp Lys Lys Glu Leu Ser Glu Glu Ser Glu Asp Glu
65 70 75 80

Glu Leu Gln Leu Glu Glu Phe Pro Met Leu Lys Thr Leu Asp Pro Lys
85 90 95

Asp Trp Lys Asn Gln Asp His Tyr Ala Val Leu Gly Leu Gly His Val
100 105 110

Arg Tyr Lys Ala Thr Gln Arg Gln Ile Lys Ala Ala His Lys Ala Met
115 120 125

Val Leu Lys His His Pro Asp Lys Arg Lys Ala Ala Gly Glu Pro Ile
130 135 140

Lys Glu Gly Asp Asn Asp Tyr Phe Thr Cys Ile Thr Lys Ala Tyr Glu
145 150 155 160

Met Leu Ser Asp Pro Val Lys Arg Arg Ala Phe Asn Ser Val Asp Pro
165 170 175

Thr Phe Asp Asn Ser Val Pro Ser Lys Ser Glu Ala Lys Asp Asn Phe
180 185 190

Phe Glu Val Phe Thr Pro Val Phe Glu Arg Asn Ser Arg Trp Ser Asn
195 200 205

Lys Lys Asn Val Pro Lys Leu Gly Asp Met Asn Ser Ser Phe Glu Asp
210 215 220

Val Asp Ile Phe Tyr Ser Phe Trp Tyr Asn Phe Asp Ser Trp Arg Glu
225 230 235 240

Phe Ser Tyr Leu Asp Glu Glu Glu Lys Glu Lys Ala Glu Cys Arg Asp
245 250 255

Glu Arg Arg Trp Ile Glu Lys Gln Asn Gly Ala Thr Arg Ala Gln Arg
260 265 270

Lys Lys Glu Glu Met Asn Arg Ile Arg Thr Leu Val Asp Asn Ala Tyr
275 280 285

Ser Cys Asp Pro Arg Ile Lys Lys Phe Lys Glu Glu Glu Lys Ala Lys
290 295 300

Lys Glu Ala Glu Lys Lys Ala Lys Ala Glu Ala Lys Arg Lys Glu Gln
305 310 315 320

Glu Ala Lys Glu Lys Gln Arg Gln Ala Glu Leu Glu Ala Ala Arg Leu
325 330 335

Ala Lys Glu Lys Glu Glu Glu Glu Val Arg Gln Gln Ala Leu Leu Ala
340 345 350

Lys Lys Glu Lys Asp Ile Gln Lys Lys Ala Ile Lys Lys Glu Arg Gln
355 360 365

Lys Leu Arg Asn Ser Cys Lys Ile Glu Glu Ile Asn Glu Gln Ile Arg
370 375 380

Lys Glu Lys Glu Glu Ala Glu Ala Arg Met Arg Gln Ala Ser Lys Asn
385 390 395 400

Thr Glu Lys Ser Thr Gly Gly Gly Gly Asn Gly Ser Lys Asn Trp Ser
405 410 415

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Glu Asp Asp Leu Gln Leu Leu Ile Lys Ala Val Asn Leu Phe Pro Ala
420 425 430

Arg Thr Asn Ser Arg Trp Glu Val Ile Ala Asn Tyr Met Asn Ile His
435 440 445

Ser Ser Ser Gly Val Lys Arg Thr Ala Lys Asp Val Ile Gly Lys Ala
450 455 460

Lys Ser Leu Gln Lys Leu Asp Pro His Gln Lys Asp Asp Ile Asn Lys
465 470 475 480

Lys Ala Phe Asp Lys Phe Lys Lys Glu His Gly Val Val Pro Gln Ala
485 490 495

Asp Asn Ala Thr Pro Ser Glu Arg Phe Glu Gly Pro Tyr Thr Asp Phe
500 505 510

Thr Pro Trp Thr Thr Glu Glu Gln Lys Leu Leu Glu Gln Ala Leu Lys
515 520 525

Thr Tyr Pro Val Asn Thr Pro Glu Arg Trp Glu Lys Ile Ala Glu Ala
530 535 540

Val Pro Gly Arg Thr Lys Lys Asp Cys Met Lys Arg Tyr Lys Glu Leu
545 550 555 560

Val Glu Met Val Lys Ala Lys Lys Ala Ala Gln Glu Gln Val Leu Asn
565 570 575

Ala Ser Arg Ala Lys Lys
580

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